

# Mark Scheme Summer 2009

GCSE

GCSE Design & Technology (1971/2F)

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#### 1971 2F Mark Scheme

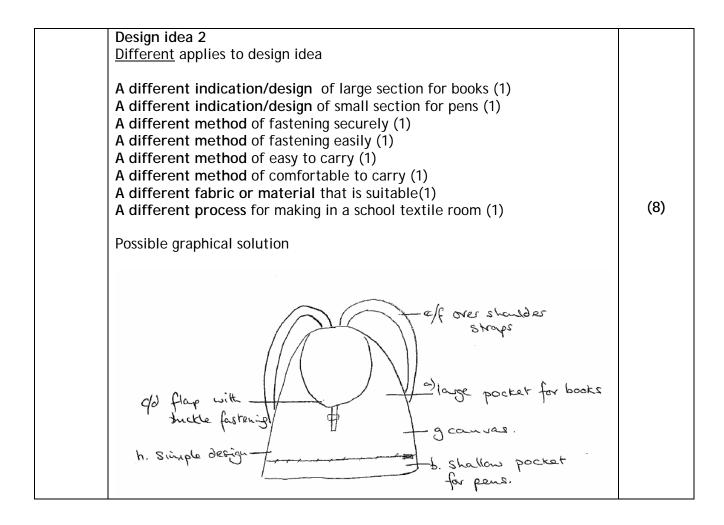
Question Number	Answer		Mark
Q01(a)	Name and use of the following:		
	Name: Scissors/shears Use: For cutting		
	Name: Velcro Use: Fastening. E.g. opening garments / shoes / accessories		
	Name: Thread/ (reel of) cotton/sewing thread Use: To sew/stitch/tack fabric / attach components / decoration		
	Name: Foot/Presser foot not presser on own Use: To hold the fabric down/in place when sewing by machine		
	Name: Sewing machine / machine Use: To sew/stitch / make buttonholes / to put in a zip / joining/making a seam/machine embroidery/decorative stitching	<i>(</i> )	
	Accept Phonetic spellings	(5 x 1) (5 x 1)	(10)
Q01(b)	Two rules from:		
	<ul> <li>Keep hands/body away from steam/iron/hot surfaces</li> <li>Ensure in good working order/condition</li> <li>Fill with water before switching on</li> <li>Stand upright/on end when not in/between use</li> <li>Use on a stable surface</li> <li>Switch off when not in use</li> </ul>		
	Keep wires out of the way	(2 x 1)	(2)
Q01(c)(i)	Two rules from:		
	<ul> <li>Use a needle board/towel/piece of velvet to press on</li> <li>Press on W.S /plain/ do not press on R.S/pile</li> <li>Use a low/ warm/2 dots/correct temperature</li> <li>Use steam / damp cloth</li> <li>Do not use much pressure</li> </ul>		
	Use a seam roll	(2 x 1)	(2)
Q01(c)(ii)	One rule given:		
	<ul> <li>All pieces face the same way/lie in same direction</li> <li>All pieces have the nap going downwards/upwards</li> </ul>		
	Consider the pattern drop/repeat/design	(1 x 1)	(1)

Q01(d)	Two reasons from:	
	less wastage/ best use of fabric	
	<ul> <li>saves time/faster process</li> </ul>	
	reduces cost	
	accurate	
	can be repeated/used again	(2)
	(2 x 1)	(2)
Q01(e)	Three reasons from:	
	Can see what a product will look like before production / Virtual results can be shown to potential clients	
	Can change colours/textures/patterns	
	Designs / style features can be adapted / stored/modified	
	Reduces waste / cost	
	Can create a wide range of possibilities	
	Data sent electronically to clients	
	Do not accept speed/quicker	(3)
	(3 x 1)	
Q01(f)	Two reasons from:	
	to simplify production	
	speed up the response / quick	
	improve efficiency	
	cut costs	
	reduces the number of workers	
	reduces errors / mistakes / all products the same/identical	(2)
	(2 x 1)	(2)
	Total	22

Question	Answer					Mark
Number Q02(a)						
Q02(a)		N C C'I			1	
		Name of fibre	Manufactured X	Natural		
		Acrylic Linen	Λ	Х		
		Polyester	Х	^		
	-	Silk	Λ	X		
		JIK		X	(4 x 1)	(4)
Q02(b)(i)	One charac	teristic from:				(4)
	Stretchy	1				
	Warm					
	Do not f	ray				
	Unravel					
	Curl at t	the edges				
		Ū			(1 x 1)	(1)
Q02(b)(ii)	One charac	teristic from:				
	- Fray					
	Fray	t stretch				
	Does no	l stretch			(1 x 1)	(1)
						(')
Q02(c)	Three name	ed from:				
	Plain					
	T					
	<ul><li>Twill</li><li>Satin</li></ul>					
		oone/ Chevron				
	<ul><li>Pile</li></ul>	Solie/ Chevion				
	<ul> <li>Jacquar</li> </ul>	d				
	<ul> <li>Sateen</li> </ul>	u				
	<ul> <li>Damask</li> </ul>					
	Dumusik				(3 x 1)	(3)
Q02(d)	One reason	explained from	:			
		,				
			e wearing so comfo	ortable to wear/c	loes	
		rict movement		rn to its original		
	Stretchi     shape	ng is not perma	nent so it will retu	in to its original		
	-	t crease easily	so good appearance	e is maintained		
		-	erefore it keeps yo			
			ioi ororo ne koops ye		(2 x 1)	(2)
					、 · /	

Q02(e)	Two reasons from:	
	• Expensive to keep up with trends/ people may not be able to	
	afford it	
	People may spend beyond their means/need credit	
	<ul> <li>Pester power from children</li> <li>Uses resources which could be considered a waste</li> </ul>	
	<ul> <li>Extra production/energy consumption</li> </ul>	
	<ul> <li>Causes pollution</li> </ul>	
	Encourages throw away culture	
	(2 x 1)	(2)
Q02(f)	Three reasons from:	
	Reduces waste/landfill	
	Reduces pollution	
	To preserve resources	
	Fabric can be turned back into fibres	
	Used/adapted to make other products	
	Can be passed on for further use / reuse	
	Cheaper / than buying new	(3)
	(3 x 1)	(3)
Q02(g)	Two advantages from:	
	a siyes consumer confidence to huw the item	
	<ul> <li>gives consumer confidence to buy the item</li> <li>they know it has been tested to meet agreed standards/ safety</li> </ul>	
	standards	
	<ul> <li>they know the item is safe to use</li> </ul>	
	<ul> <li>know the risks involved / gives consumer information / warnings         (2 x 1)</li> </ul>	(2)
000(h)	Tour no com form	
Q02(h)	Two reason from:	
	Meets the requirements for resistance to cigarette / match	
	ignition / flame resistant (not fire)	
	<ul> <li>Provides a warning that the item is not fireproof (not flammable)</li> <li>Fabrics have been tested to meet arread standards (meet the</li> </ul>	
	<ul> <li>Fabrics have been tested to meet agreed standards / meet the 1988 safety regulations</li> </ul>	
	(2 x 1)	(2)
Q02(i)	One advantage described:	
	Once set up CAM can run 24/7 and provide ready supply of	
	products	
	CAM can supply high volume and so reduce prices / cheaper	
	• CAD/CAM can easily vary a design to produce different versions	
	of a product	
	<ul> <li>Produces identical/reliable/accurate products which are of the same quality</li> </ul>	
	(2 x 1)	(2)
	Total	22

Question	Answer	Mark
Number Q03(a)	Design idea 1	
	<ul> <li>Have separate pockets for books and pens</li> <li>Evidence of large section to carry books e.g. fits several books easily (1)</li> </ul>	
	<ul> <li>Evidence of small section to carry pens</li> <li>e.g. long enough, could be individual slots or a section to hold several. (1)</li> </ul>	
	<ul> <li>Fasten securely and easily</li> <li>Fasten securely <ul> <li>e.g. flaps with buttons/drawstring, zips, (1)</li> </ul> </li> </ul>	
	<ul> <li>Fasten easily e.g. Velcro, poppers, zip, drawstring clips (1)</li> </ul>	
	<ul> <li>Be easy and comfortable to carry</li> <li>Easy to hold <ul> <li>e.g. easy to hold width of handles, shoulder straps (1) (Comfort must be shown clearly by annotation or diagram)</li> </ul> </li> </ul>	
	<ul> <li>Comfortable to carry e.g. padded straps/handles/back, short or long handles (1)</li> </ul>	
	<ul> <li>Be made from materials and processes suitable for production in a schools textile room.</li> <li>Evidence of a suitable material (do not accept leather)</li> <li>Evidence of a process e.g. seams, fastenings, hems, embroidery techniques (CAM) (1)</li> </ul>	
	Possible graphical solution	
	Design 1. - effenide bug strap	
	c/d zip fastening (	
	a. lærge pocket for books a denim	(8)
	g. denim torpens.	



Question Number	Answer	Mark
Q03(b)(i)	<ul> <li>Marks may be awarded for two justifications of one specification point</li> <li>Evaluation of: have separate section for books and pens</li> <li>Evaluative comments positive or negative on:</li> <li>Large section to carry books (1)</li> </ul>	
	• Small section to carry pens (1) (2 x 1)	(2)
Q03(b)(ii)	<ul> <li>Evaluation of: fasten securely and easily</li> <li>Evaluative comments positive or negative on: <ul> <li>Pockets/main bag securely and easily fastened by</li> <li>e.g. buttons with buttonholes- correct weight for fabric, securely attached, easy to access (1)</li> </ul> </li> <li>Velcro -line up, securely attached, sited correctly, easy to access (1)</li> <li>Zip- correct weight for fabric, securely attached, easy to access (1)</li> <li>Toggle- correct weight/thick enough for fabric, securely attached, easy to access (1)</li> <li>Poppers- correct weight for fabric, securely attached, easy to access (1)</li> <li>Poppers- correct weight for fabric, securely attached, easy to access (1)</li> <li>(2 x 1)</li> </ul>	(2)
Q03(b)(iii)	<ul> <li>Evaluation of: be easy and comfortable to hold</li> <li>Evaluative comments positive or negative on:</li> <li>Easy and comfortable to hold e.g. sitting of fastenings, width and position of straps/handles, use of padding (1)</li> <li>(2 x 1)</li> </ul>	(2)
	Total	22

Question	Answer	Mark
Number		
Q04(a)(i)	The needs of the user. One point and reason from: Point: Appealing to the wearer/ attractive. Reason: Item must appeal to their needs and tastes.	
	Point: Unisex Reason: To get market share	
	Point: Bright colour Reason: To be seen in all weather conditions	
	Point: Suitable price Reason: To suit the budget available	
	Point: Size Reason: Available in different sizes for all ages	
	Point: Wipe clean Reason: Easy to maintain	
	<b>Point</b> : Easy to get on and off <b>Reason</b> : Need to put on quickly when the weather changes	
	Point: Warmth Reason: To wear in cold conditions	
	Point: Easy to move in Reason: Worn during activity so need freedom of movement	
	Point: Does not crease easily Reason: Looks presentable after being stored in bag (2 x 1)	(2)
Q04(a)(ii)	Environmental. One point and reason from: Point: Reduced obsolescence /not a high fashion item Reason: Can be handed down/reused	
	Point: Washed easily in 2 separate parts/ machine washable at 30°C/40°C / no need to iron Reason: Less energy used drying / ironing.	
	Point: Durable/hardwearing/ good quality / last a long time Reason: Reduced amounts in landfill	
	Point: Make use of recycled materials/plastic bottles Reason: Reduce environmental impact / saves resources (2 x 1)	(2)
Q04(a)(iii)	Quality. One point and reason from: Point: Well made eg. stitching secure and accurate,/ edges finished accurately/appropriately, /pockets/zips secure. Reason: Item may be worn by children so must be firmly stitched/components attached securely/stay looking good / able to keep performing in all weather conditions	
	Point: Durable/hardwearing fabrics Reason: To withstand wear and tear/ensure it lasts	
	Point: Lightweight Reason: Easy to carry around /comfortable to wear	
	Point: Good quality components (zip) Reason: To withstand wear and tear.	
	(2 x 1)	(2)

	Two reasons given from:	
	<ul> <li>Comfortable/soft to wear/not irritable</li> <li>Warm to wear / insulates</li> <li>Breathable / perspiration moved away from body</li> <li>Resistant to ripping / durable</li> <li>Wrinkle/crease resistant</li> <li>Absorbs colours well/can be dyed bright colours</li> <li>Can stretch</li> <li>Easily washed</li> <li>Inexpensive fabric</li> </ul>	
	• Lightweight (2 x 1)	(2)
Q04(c)	Two reasons from:	
	<ul> <li>Weather proof/waterproof, does not allow rain to enter</li> <li>Windproof</li> <li>Strong/durable</li> </ul>	
	• Does not leave holes in the fabric (2 x 1)	(2)
Q04(d)	Two properties with reasons from:	
	Property: Good insulation / wind resistant/proof Reason: keeps wearer warm	
	Property: Shower/rain resistant/waterproof/hydrophobic Reason: keeps wearer dry	
	Property: Strong/hardwearing/resilient/ durable Reason: Needs to withstand wear and tear/ outdoor conditions / last a long time	
	Property: Lightweight Reason: Comfortable to wear over other clothes/not heavy to walk in / easy to carry in a bag	
	Property: Does not pill / Resistant to bacteria and moulds Reason: maintains a good appearance for a long time	
	Property: Machine washable Reason: Needs to be quick/easy to clean (2 x 1) (2 x 1)	(4)

Q04(e)	Two checks named from:	
	<ul> <li>After cutting to check sizes within tolerances</li> <li>Tolerance levels for seam widths / collar / sleeve length / cuffs</li> <li>Seams are bonded correctly / /</li> <li>Stitching quality/tension. (not seam quality)</li> <li>Zips are straight/working</li> <li>Reflective strips the same width/straight</li> <li>Lining not twisted</li> <li>Check for inclusion of care label</li> <li>Velcro securely attached</li> <li>Inner and outer jacket fit correctly together</li> <li>Components sewn on accurately</li> </ul>	
	(2 x 1)	(2)
Q04(f)	<ul> <li>One way described from:</li> <li>Patterns stored in memory so can be used again</li> <li>Logo is programmed automatically. repetitive process to sew the design so quick/easy/cheap to produce</li> <li>Produced in quantity/ batch so a consistent/accurate/ identical/high quality standard maintained</li> </ul>	
	(2 x 1)	(2)
Q04(g)(i)	<ul> <li>One example explained of how purpose is achieved</li> <li>protect the wearer from wind and rain</li> <li>hood can be put on to keep wearer dry</li> <li>coated polyester/waterproof/weatherproof fabric has properties that keep the wearer protected from weather/wind / repels rain</li> <li>Zips go right up to the stand up collar</li> <li>elasticated cuffs which will stop the wind/rain from entering</li> <li>inner fleece jacket is made of a warm fabric</li> <li>Bonded seams will not allow rain to enter</li> </ul>	(2)
Q04(g)(ii)	be seen in the dark	(-)
	<ul> <li>all round reflective strips./ logo will shine when light hits them</li> <li>(2 x 1)</li> </ul>	(2)
	Total	22
	Total for paper	88

## 1971 2H Textiles Technology

Question Number	Answer	Mark
Q01(a)(i)	The needs of the user. One point and reason from: Point: Appealing to the wearer/ attractive. Reason: Item must appeal to their needs and tastes.	
	Point: Unisex Reason: To get market share	
	Point: Bright colour Reason: To be seen in all weather conditions	
	Point: Suitable price Reason: To suit the budget available	
	Point: Size Reason: Available in different sizes for all ages	
	Point: Wipe clean Reason: Easy to maintain	
	Point: Easy to get on and off Reason: Need to put on quickly when the weather changes	
	Point: Warmth Reason: To wear in cold conditions	
	Point: Easy to move in Reason: Worn during activity so need freedom of movement	
	Point: Does not crease easily Reason: Looks presentable after being stored in bag	
	(2 x 1)	(2)
Q01(a)(ii)	Environmental. One point and reason from: Point: Reduced obsolescence /not a high fashion item Reason: Can be handed down/reused	
	Point: Washed easily in 2 separate parts/ machine washable at 30°C/40°C / no need to iron Reason: Less energy used drying / ironing.	
	Point: Durable/hardwearing/ good quality / last a long time Reason: Reduced amounts in landfill	
	Point: Make use of recycled materials/plastic bottles Reason: Reduce environmental impact / saves resources	
	(2 x 1)	(2)

Q01(a)(iii)	Quality. One point and reason from:Point: Well made eg. stitching secure and accurate,/ edges finaccurately/appropriately, /pockets/zips secure.Reason: Item may be worn by children so must be firmlystitched/components attached securely/stay looking good / atkeep performing in all weather conditionsPoint: Durable/hardwearing fabricsReason: To withstand wear and tear/ensure it lastsPoint: LightweightReason: Easy to carry around /comfortable to wearPoint: Good quality components (zip)		
	Reason: To withstand wear and tear.	(2 x 1)	(2)
Q01(b)	<ul> <li>Two reasons given from:</li> <li>Comfortable/soft to wear/not irritable</li> <li>Warm to wear / insulates</li> <li>Breathable / perspiration moved away from body</li> <li>Resistant to ripping / durable</li> <li>Wrinkle/crease resistant</li> <li>Absorbs colours well/can be dyed bright colours</li> <li>Can stretch</li> <li>Easily washed</li> <li>Inexpensive fabric</li> <li>Lightweight</li> </ul>	(2 x 1)	(2)
Q01(c)	<ul> <li>Two reasons from:</li> <li>Weather proof/waterproof, does not allow rain to enter</li> <li>Windproof</li> <li>Strong/durable</li> <li>Does not leave holes in the fabric</li> </ul>		
		(2 x 1)	(2)

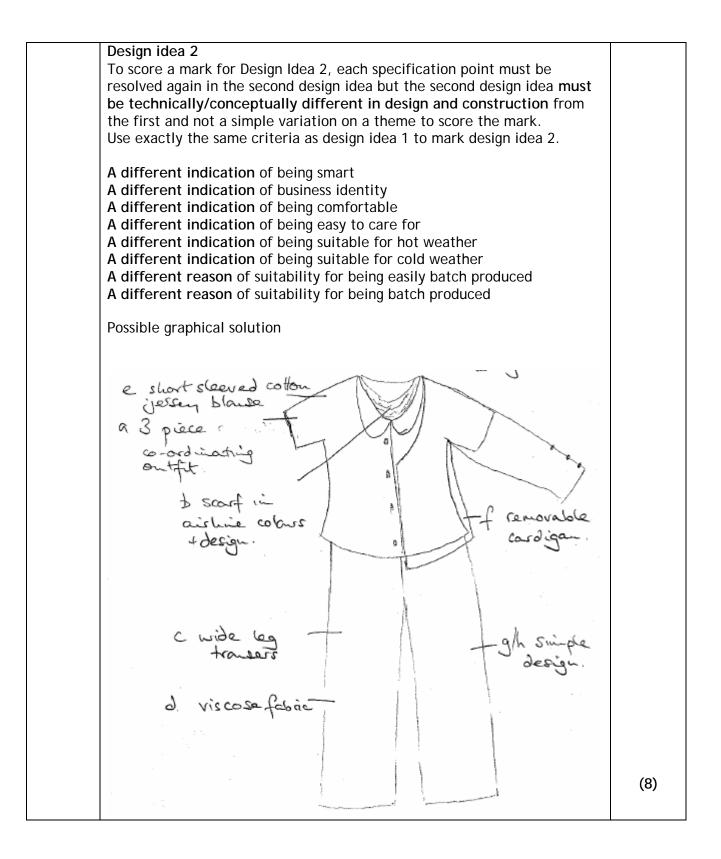
Q01(d)	Two properties with reasons from:	
	Property: good insulation / wind resistant/proof Reason: keeps wearer warm	
	Property: Shower/rain resistant/waterproof/hydrophobic Reason: keeps wearer dry	
	Property: Strong/hardwearing/resilient Reason: needs to withstand wear and tear/ outdoor conditions / last a long time	
	Property: Lightweight Reason: comfortable to wear over other clothes/not heavy to walk in / easy to carry in a bag	
	Property: Does not pill / Resistant to bacteria and moulds Reason: maintains a good appearance for a long time	
	Property: Machine washable Reason: Needs to be quick/easy to clean (2 x 1)	
	(2 × 1) (2 × 1)	(4)
Q01(e)	Two checks named from:	
	<ul> <li>After cutting to check sizes within tolerances</li> <li>Tolerance levels for seam widths / collar / sleeve length / cuffs</li> <li>Seams are bonded correctly</li> <li>Stitching quality/tension</li> <li>Zips are straight/working</li> <li>Reflective strips the same width/straight</li> <li>Lining not twisted</li> <li>Check for inclusion of care label</li> <li>Velcro securely attached</li> <li>Inner and outer jacket fit correctly together</li> <li>Components sewn on accurately</li> </ul>	(2)
Q01(f)		(2)
	<ul> <li>One way described from:</li> <li>Patterns stored in memory so can be used again</li> <li>Logo is programmed automatically to sew the design so quick/easy/cheap to produce</li> <li>Produced in quantity/ batch so a consistent/accurate/ identical/high quality standard maintained</li> </ul>	
	(2 x 1)	(2)

Q01(g) (i)	One example explained of how purpose is achieved	
	protect the wearer from wind and rain:	
	<ul> <li>hood can be put on to keep wearer dry</li> <li>coated polyester/waterproof/weatherproof fabric has properties that keep the wearer protected from weather/wind / repels rain</li> <li>Zips go right up to the stand up collar</li> <li>elasticated cuffs which will stop the wind/rain from entering</li> <li>inner fleece jacket is made of a warm fabric</li> </ul>	
	Bonded seams will not allow rain to enter     (2 x 1)	(2)
Q01(g) (ii)	be seen in the dark:	
	• all round reflective strips will shine when light hits them (2 x 1)	(2)
	Total	22

Question Number	Answer		Mark
Q02(a)	Two examples from:		
	Felt (1)     Interfacing (Village (bandowsh (1))		
	<ul> <li>Interfacing/Vilene/bondaweb (1)</li> <li>Neoprene (1)</li> </ul>		
	<ul> <li>Bonded fabrics</li> </ul>		
	(Accept phonetic spellings)		( <b>2</b> )
		(2 x 1)	(2)
Q02(b)	Two examples from:		
	Bleaching		
	• Easy-care		
	Mercerising		
	Laminating		
	Coating     Elsevene et (Decker)		
	<ul> <li>Flame resist/proof/Proban</li> <li>Water-repellent/resist / proof</li> </ul>		
	<ul> <li>Moth repellent</li> </ul>		
	Stain resist		
	Crease resist		
	Shrink resist/ Sanforising		
	Anti-static		(2)
		(2 x 1)	(-)
Q02(c)	Four main stages given		
	• Stage 1 Tie /knot/fold/twist/bind/gather the fabric		
	randomly/regular pattern		
	Stage 2 given in question		
	Stage 3 Rinse/wash until colour stops coming out		
	Stage 4 Leave to dry / take out the ties		
	Stage 5 Iron	(4 x 1)	(4)
003(4)	Three given from:	(+ / 1)	
Q02(d)	Three given from:		
	Pattern pieces lie in the same direction		
	Grain lines run parallel to the selvedge/warp/are straight		
	Plan placement of pattern carefully before cutting		
	<ul> <li>Position patterns similarly on right &amp; left side/front and back/controlly/at soams</li> </ul>		
	<ul> <li>back/centrally/at seams</li> <li>May need to cut single layers rather than double</li> </ul>		
	• May need to edit single layers rather than double	(3 x 1)	(3)
002(0)	Two features from:	. ,	
Q02(e)			
	Products produced quickly		
	Manufactured on a continuous 24 hour basis		
	Workforce do one operation		
	Minimum number of human workers		
	Products move automatically around the factory	(2 x 1)	(2)
		(2 / 1)	~ /

Q02(f)	Three ways given from:	
	- Current price always available (1)	
	<ul> <li>Current price always available (1)</li> <li>Instant stock level /sizes available (1)</li> </ul>	
	<ul> <li>Automatic re-order to suppliers (1)</li> </ul>	
	<ul> <li>Customer purchase patterns to central database (1)</li> </ul>	
	<ul> <li>Barcodes can identify the product (1)</li> </ul>	
	(3 x 1)	(3)
002(a)(i)	One reason our lained from	
Q02(g)(i)	One reason explained from:	
	Producing fabric in different patterns can be done	
	automatically/at the click of a mouse.	
	Can create various colourways so the same design can look	
	different	
	• CAD can cut and paste motifs so they can be	
	stretched/squashed/mirrored/rotated	
	<ul> <li>Knitting stitches/weaves can be simulated to show the final finish</li> </ul>	
	<ul> <li>Can show designs to potential clients on screen without</li> </ul>	
	producing samples	
	Saves money because designs are not produced by hand	
	(Do not credit (squar time))	
	(Do not credit 'saves time') (2 x 1)	(2)
		(-)
Q02(g)(ii)	One reason from:	
	Microprocessors used to control the movement of small     patterns pieces during stitching	
	<ul> <li>patterns pieces during stitching</li> <li>Sensors and monitoring systems stitch correctly but can be</li> </ul>	
	stopped if a problem	
	<ul> <li>Components can be attached to a jig which then follows the</li> </ul>	
	profile to stitch it	
	Consistent quality/accuracy because processes are	
	automated/no human error	(2)
	(2 x 1)	(2)
Q02(h)	One explanation from:	
	Products checked / quality monitored at certain points during	
	production so errors picked up at appropriate point and	
	rectified/rejected	
	<ul> <li>A sample of products are checked, so that consistency of quality is monitored (it mosts specified standards)</li> </ul>	
	<ul> <li>quality is monitored / it meets specified standards</li> <li>Workers are well trained/tolerance levels set correctly meaning</li> </ul>	
	faults should not happen often	
	(2 x 1)	(2)
	Total	22
		22

Question	Answer	Mark
Number		
Q03(a)	<ul> <li>Design idea 1</li> <li>Be smart and identify the staff working for the business</li> <li>Evidence of smart appearance e.g. suit skirt/trousers, tie, scarf, buttons, smooth fabrics collar</li> <li>Evidence of identifying staff e.g. badge, corporate colours, tie/scarf/ hat</li> <li>Be comfortable and easy to care for</li> </ul>	
	<ul> <li>Evidence of being comfortable e.g. removable jacket, short sleeves, loose fitting clothes, elastic waistband, comfortable fabrics</li> <li>Evidence of easy to care for e.g. washable fabrics, crease resistant, stain resistant</li> </ul>	
	<ul> <li>Be suitable for hot and cold weather conditions</li> <li>Evidence of being suitable for hot conditions e.g. removable jacket, open shirt, absorbent fabrics, cool to wear fabrics</li> <li>Evidence of being suitable for cold conditions e.g. jacket, extra layers, scarf, hat, insulating fabric</li> </ul>	
	<ul> <li>Be easily suitable for batch production</li> <li>Evidence that design is suitable for batch production e.g. simple design/features no hand decoration / CAM could be used for identity feature.</li> <li>e.g. able to produce many to same quality/ quick processes /standard components.</li> </ul>	
	Possible graphical solution	
	a) Transers with waistcoat and shirt and cravat business logo. b) eff. removable waistcoat A jacket could be added. for Finisers for male or finale Comfortable to war. d) Trevisa faloic easy to care for b) Simple design.	(8)
1971	8971 GCSF Textiles Mark Scheme 21	



Q03(b)(i)	<ul> <li>Evaluation of: Be smart and identify the staff working for the business Evaluative comments positive or negative on:</li> <li>smart appearance e.g. suit skirt/trousers, tie, scarf, smooth fabrics (1)</li> </ul>	
	<ul> <li>identifying staff e.g. badge, corporate colours, tie/scarf (1)</li> <li>(2 x 1)</li> </ul>	(2)
Q03(b)(ii)	<b>Evaluation of:</b> Be comfortable and easy to care for Evaluative comments positive or negative on:	
	<ul> <li>being comfortable e.g. removable jacket, short sleeves, loose fitting clothes (1)</li> <li>easy to care for e.g. washable fabrics, crease resistant, stain</li> </ul>	
	resistant (1) (2 x 1)	(2)
Q03(b)(iii)	<b>Evaluation of:</b> Be suitable for hot and cold weather conditions Evaluative comments positive or negative on:	
	<ul> <li>being suitable for hot conditions e.g. removable jacket, open shirt, absorbent fabrics, cool to wear fabrics (1)</li> <li>being suitable for cold conditions e.g. jacket, extra layers, scarf (1)</li> </ul>	
	(2 x 1)	(2)
	Total	22

Question Number	Answer	Mark
Q04(a)	Two characteristics given from: • Long fibres (1) • Strong (1) • Smooth (1)	
	• Smooth (1) (2 x 1)	(2)
Q04(b)	One description:	
	Inner core is covered with an outer layer of overlapping scales (only answer) (2 x 1)	(2)
Q04(c)	Three properties from:	
	<ul> <li>Not very absorbent/dry quickly (1)</li> <li>Strong / hardwearing / durable (1)</li> <li>Weak when wet(1)</li> <li>Can be soft (1)</li> <li>Can be fine (1)</li> <li>Can be coarse(1)</li> <li>Good resilience (1)</li> <li>Shrinks when heated (1)</li> <li>Burns slowly and melts (1)</li> <li>Modacrylic is flame resistant (1)</li> </ul>	
	(3 x 1)	(3)
Q04(d)	<ul> <li>Two features from:</li> <li>Warp- Yarns knitted vertically, weft - Yarns knitted horizontally</li> <li>Warp-Each loop in the chain interlocks with the one in the row below and above, weft - Row of loops formed along the length of the yarn</li> <li>Warp -Industrial process only, weft Can be made by hand or machine</li> <li>Warp -Mostly made from filament yarns, weft Both staple &amp; filament yarns can be used (2 x 1)</li> </ul>	
	(2 x 1)	(4)
Q04(e) (i)	<ul> <li>Two advantages from:</li> <li>Shows them how to care for /wash/dry/iron it correctly (1)</li> <li>They will not use the wrong care and ruin the garment/advises special precautions (1)</li> <li>They know if it needs dry cleaning (1)</li> <li>They know the fabric type (1)</li> <li>Warns if colour may run / wash dark colours separately (1) <ul> <li>(2 x 1)</li> </ul> </li> </ul>	(2)

Q04(e) (ii)	One action stated	
	<ul> <li>Return item to the shop/complain (1)</li> <li>Return to manufacturer (1)</li> <li>Contact trading standards (1)</li> <li>Can ask for refund/replacement (1) (1 x 1)</li> </ul>	(1)
Q04(f)	Two moral issues from:	
	<ul> <li>Consumer is aware of poor working conditions/low pay/long hours of the textile workers in the Far East</li> <li>Child labour is employed against international agreed standards</li> <li>Piece work means workers produce many garments for a small wage but the 'middle men' make large profits</li> <li>Increased transportation adds to environmental pollution</li> <li>Jobs in the UK are gone/fewer as it is cheaper to produce clothes in the Far East</li> <li>May be working in unsafe conditions and they do not have rights to protest against them</li> <li>Consumers feel guilty about buying garments produced under these conditions</li> </ul>	
	(2 × 1) (2 × 1)	(4)
Q04(g)	<ul> <li>Two ways described from:</li> <li>Large amounts of chemicals required to wash fibres</li> <li>Large wastage of wood pulp /50% of the timber used is wasted.</li> <li>Waste could go into landfill</li> <li>Emissions are released into atmosphere so air quality is changed</li> <li>Fossil fuels used for energy which is unsustainable/causes global warming/generates carbon dioxide</li> <li>Growing trees uses up land space which could be used for growing food         (2 x 1)         (2 x 1)</li> </ul>	(4)
	Total	22
	Total for paper	88

#### 3971 2F Mark Scheme

Question Number	Answer		Mark
Q01(a)	Name and use of the following:		
Q01(u)	Name and use of the following.		
	Name: Scissors/shears		
	Use: For cutting		
	Name: Velcro Use: Fastening. E.g. opening garments / shoes / accessories		
	Use. Tastening. L.y. Opening garments / shoes / accessories		
	Name: Thread/ (reel of) cotton/sewing thread		
	Use: To sew/stitch/tack fabric / attach components / decoration		
		$(2 \times 1)$	
		(3 x 1) (3 x 1)	(6)
	Accept Phonetic spellings		
001(1-)	True males from		
Q01(b)	Two rules from:		
	Keep hands/body away from steam/iron/hot surfaces		
	Ensure in good working order/condition		
	Fill with water before switching on		
	<ul> <li>Stand upright/on end when not in/between use</li> </ul>		
	Use on a stable surface		
	Switch off when not in use		
	Keep wires out of the way	(2 × 1)	(2)
		(2 x 1)	
Q01(c)(i)	Two rules from:		
	Use a needle board/towel/piece of velvet to press on		
	<ul> <li>Press on W.S /plain/ do not press on R.S/pile</li> </ul>		
	<ul> <li>Use a low/ warm/2 dots/correct temperature</li> </ul>		
	• Use steam / damp cloth		
	Do not use much pressure		
	Use a seam roll		
		(2 x 1)	(2)
Q01(c)(ii)	One rule given:		
	All pieces face the same way/lie in same direction		
	All pieces have the nap going downwards/upwards		
	Consider the pattern drop/repeat/design		(1)
		(1 x 1)	(1)
	l	Total	11

Question Number	Answer					Mark
Q02(a)						
		Name of fibre	Manufactured	Natural		
		Acrylic	X			
		Linen		Х		
		Polyester	Х			
		Silk		Х		
			L		(4 x 1)	(4)
Q02(b)(i)	One chara	acteristic from:				
202(0)(1)						
	Stretc					
	• Warm					
	<ul> <li>Do no<sup>-</sup></li> </ul>					
	Unrav					
	• Curl a	t the edges			(1 x 1)	(1)
Q02(b)(ii)	One chara	acteristic from:				
	<ul> <li>Fray</li> </ul>					
	Does r	not stretch				<i></i>
					(1 x 1)	(1)
000()						
Q02(c)	I hree nai	med from:				
	Plain					
	Twill     Setin					
	Satin					
		igbone/ Chevron				
	Pile	and				
	<ul> <li>Jacqu</li> </ul>					
	Sateer					
	• Damas	SK			(3 x 1)	(3)
Q02(d)	One reaso	on explained from	:			
		estrict movement	e wearing so comfo	or table to wear/c	loes	
				rn to its original		
	<ul> <li>Stretc</li> <li>shape</li> </ul>		nent so it will retu	in to its original		
			so good appearance	e is maintained		
		-	erefore it keeps yo			
	- AII (II	car is trapped th	icicioi c it keeps yt		(2 x 1)	(2)
					(/	

Question Number	Answer	Mark
Q03(a)(i)	The needs of the user. One point and reason from: Point: Appealing to the wearer/ attractive. Reason: Item must appeal to their needs and tastes.	
	Point: Unisex Reason: To get market share	
	Point: Bright colour Reason: To be seen in all weather conditions	
	Point: Suitable price Reason: To suit the budget available	
	Point: Size Reason: Available in different sizes for all ages	
	Point: Wipe clean Reason: Easy to maintain	
	Point: Easy to get on and off Reason: Need to put on quickly when the weather changes	
	Point: Warmth Reason: To wear in cold conditions	
	Point: Easy to move in Reason: Worn during activity so need freedom of movement	
	Point: Does not crease easily Reason: Looks presentable after being stored in bag (2 x 1)	(2)
Q03(a)(ii)	Environmental. One point and reason from: Point: Reduced obsolescence /not a high fashion item Reason: Can be handed down/reused	
	Point: Washed easily in 2 separate parts/ machine washable at 30°C/40°C / no need to iron Reason: Less energy used drying / ironing.	
	Point: Durable/hardwearing/ good quality / last a long time Reason: Reduced amounts in landfill	
	Point: Make use of recycled materials/plastic bottles Reason: Reduce environmental impact / saves resources (2 x 1)	(2)
Q03(a)(iii)	Quality. One point and reason from: Point: Well made eg. stitching secure and accurate,/ edges finished accurately/appropriately, /pockets/zips secure. Reason: Item may be worn by children so must be firmly stitched/components attached securely/stay looking good / able to keep performing in all weather conditions	
	Point: Durable/hardwearing fabrics Reason: To withstand wear and tear/ensure it lasts	
	Point: Lightweight Reason: Easy to carry around /comfortable to wear	
	Point: Good quality components (zip) Reason: To withstand wear and tear.	
1971/397	1 GCSE Textiles Mark Scheme 28 (2 x 1)	(2)

Q03(b)	Two reasons given from:	
	<ul> <li>Comfortable/soft to wear/not irritable</li> <li>Warm to wear / insulates</li> <li>Breathable / perspiration moved away from body</li> <li>Resistant to ripping / durable</li> <li>Wrinkle/crease resistant</li> <li>Absorbs colours well/can be dyed bright colours</li> <li>Can stretch</li> <li>Easily washed</li> <li>Inexpensive fabric</li> </ul>	
	• Lightweight (2 x 1)	(2)
Q03(c)	Two reasons from:	
	<ul> <li>Weather proof/waterproof, does not allow rain to enter</li> <li>Windproof</li> <li>Strong/durable</li> </ul>	
	• Does not leave holes in the fabric (2 x 1)	(2)
Q03(d)	Two properties with reasons from:	
	Property: Good insulation / wind resistant/proof Reason: keeps wearer warm	
	Property: Shower/rain resistant/waterproof/hydrophobic Reason: keeps wearer dry	
	Property: Strong/hardwearing/resilient/ durable Reason: Needs to withstand wear and tear/ outdoor conditions / last a long time	
	Property: Lightweight Reason: Comfortable to wear over other clothes/not heavy to walk in / easy to carry in a bag	
	Property: Does not pill / Resistant to bacteria and moulds Reason: maintains a good appearance for a long time	
	Property: Machine washable Reason: Needs to be quick/easy to clean (2 x 1)	
	(2 x 1)	(4)

Q03(e)	Two checks named from:	
	<ul> <li>After cutting to check sizes within tolerances</li> <li>Tolerance levels for seam widths / collar / sleeve length / cuffs</li> <li>Seams are bonded correctly / /</li> <li>Stitching quality/tension. (not seam quality)</li> <li>Zips are straight/working</li> <li>Reflective strips the same width/straight</li> <li>Lining not twisted</li> <li>Check for inclusion of care label</li> <li>Velcro securely attached</li> <li>Inner and outer jacket fit correctly together</li> <li>Components sewn on accurately</li> </ul>	
	(2 x 1)	(2)
Q03(f)	<ul> <li>One way described from:</li> <li>Patterns stored in memory so can be used again</li> <li>Logo is programmed automatically. repetitive process to sew the design so quick/easy/cheap to produce</li> <li>Produced in quantity/ batch so a consistent/accurate/ identical/high quality standard maintained</li> </ul>	
	(2 x 1)	(2)
Q03(g)(i)	<ul> <li>One example explained of how purpose is achieved</li> <li>protect the wearer from wind and rain</li> <li>hood can be put on to keep wearer dry</li> <li>coated polyester/waterproof/weatherproof fabric has properties that keep the wearer protected from weather/wind / repels rain</li> <li>Zips go right up to the stand up collar</li> <li>elasticated cuffs which will stop the wind/rain from entering</li> <li>inner fleece jacket is made of a warm fabric</li> <li>Bonded seams will not allow rain to enter</li> </ul>	(2)
Q03(g)(ii)	be seen in the dark	
	<ul> <li>all round reflective strips./ logo will shine when light hits them (2 x 1)</li> </ul>	(2)
	Total	22
	Total for paper	44

## 3971 2H Textiles Technology

Question	Answer	Mark
Number		
Q01(a)(i)	The needs of the user. One point and reason from: Point: Appealing to the wearer/ attractive.	
	Reason: Item must appeal to their needs and tastes.	
	Point: Unisex Reason: To get market share	
	Point: Bright colour Reason: To be seen in all weather conditions	
	Point: Suitable price Reason: To suit the budget available	
	Point: Size Reason: Available in different sizes for all ages	
	Point: Wipe clean Reason: Easy to maintain	
	Point: Easy to get on and off Reason: Need to put on quickly when the weather changes	
	Point: Warmth Reason: To wear in cold conditions	
	Point: Easy to move in Reason: Worn during activity so need freedom of movement	
	Point: Does not crease easily Reason: Looks presentable after being stored in bag	
	(2 x 1)	(2)
Q01(a)(ii)	Environmental. One point and reason from:	
	Point: Reduced obsolescence /not a high fashion item Reason: Can be handed down/reused	
	Point: Washed easily in 2 separate parts/ machine washable at 30°C/40°C / no need to iron Reason: Less energy used drying / ironing.	
	Point: Durable/hardwearing/ good quality / last a long time Reason: Reduced amounts in landfill	
	Point: Make use of recycled materials/plastic bottles	
	Reason: Reduce environmental impact / saves resources	
	(2 x 1)	(2)

Q01(a)(iii)	Quality. One point and reason from:         Point: Well made eg. stitching secure and accurate,/ edges fir accurately/appropriately, /pockets/zips secure.         Reason: Item may be worn by children so must be firmly stitched/components attached securely/stay looking good / ab keep performing in all weather conditions         Point: Durable/hardwearing fabrics         Reason: To withstand wear and tear/ensure it lasts         Point: Lightweight         Reason: Easy to carry around /comfortable to wear		
	Point: Good quality components (zip) Reason: To withstand wear and tear.		
		(2 x 1)	(2)
Q01(b)	<ul> <li>Two reasons given from:</li> <li>Comfortable/soft to wear/not irritable</li> <li>Warm to wear / insulates</li> <li>Breathable / perspiration moved away from body</li> <li>Resistant to ripping / durable</li> <li>Wrinkle/crease resistant</li> <li>Absorbs colours well/can be dyed bright colours</li> <li>Can stretch</li> <li>Easily washed</li> <li>Inexpensive fabric</li> <li>Lightweight</li> </ul>	(2 x 1)	(2)
Q01(c)	<ul> <li>Two reasons from:</li> <li>Weather proof/waterproof, does not allow rain to enter</li> <li>Windproof</li> </ul>		
	<ul><li>Strong/durable</li><li>Does not leave holes in the fabric</li></ul>	(2 x 1)	(2)

Q01(d)	Two properties with reasons from:	
	Property: good insulation / wind resistant/proof Reason: keeps wearer warm	
	Property: Shower/rain resistant/waterproof/hydrophobic Reason: keeps wearer dry	
	Property: Strong/hardwearing/resilient Reason: needs to withstand wear and tear/ outdoor conditions / last a long time	
	Property: Lightweight Reason: comfortable to wear over other clothes/not heavy to walk in / easy to carry in a bag	
	<b>Property</b> : Does not pill / Resistant to bacteria and moulds <b>Reason</b> : maintains a good appearance for a long time	
	Property: Machine washable Reason: Needs to be quick/easy to clean	
	(2 x 1) (2 x 1)	(4)
Q01(e)	Two checks named from:	
	<ul> <li>After cutting to check sizes within tolerances</li> <li>Tolerance levels for seam widths / collar / sleeve length / cuffs</li> <li>Seams are bonded correctly</li> <li>Stitching quality/tension</li> <li>Zips are straight/working</li> <li>Reflective strips the same width/straight</li> <li>Lining not twisted</li> <li>Check for inclusion of care label</li> <li>Velcro securely attached</li> <li>Inner and outer jacket fit correctly together</li> <li>Components sewn on accurately</li> </ul>	(2)
Q01(f)	One way described from:	
	<ul> <li>Patterns stored in memory so can be used again</li> <li>Logo is programmed automatically to sew the design so quick/easy/cheap to produce</li> <li>Produced in quantity/ batch so a consistent/accurate/ identical/high quality standard maintained</li> </ul>	
	(2 x 1)	(2)

Q01(g) (i)	One example explained of how purpose is achieved	
	protect the wearer from wind and rain:	
	<ul> <li>hood can be put on to keep wearer dry</li> <li>coated polyester/waterproof/weatherproof fabric has properties that keep the wearer protected from weather/wind / repels rain</li> <li>Zips go right up to the stand up collar</li> <li>elasticated cuffs which will stop the wind/rain from entering</li> <li>inner fleece jacket is made of a warm fabric</li> </ul>	
	Bonded seams will not allow rain to enter     (2 x 1)	(2)
Q01(g) (ii)	be seen in the dark:	
	• all round reflective strips will shine when light hits them (2 x 1)	(2)
	Total	22

Question Number	Answer		Mark
Q02(a)	Two examples from:		
	<ul><li>Felt (1)</li><li>Interfacing/Vilene/bondaweb (1)</li></ul>		
	<ul><li>Neoprene (1)</li><li>Bonded fabrics</li></ul>		
	(Accept phonetic spellings)	(2 x 1)	(2)
Q02(b)	Two examples from:		
	<ul> <li>Bleaching</li> <li>Easy-care</li> <li>Mercerising</li> <li>Laminating</li> <li>Coating</li> <li>Flame resist/proof/Proban</li> </ul>		
	<ul> <li>Water-repellent/resist / proof</li> <li>Moth repellent</li> <li>Stain resist</li> <li>Crease resist</li> </ul>		
	<ul> <li>Shrink resist/ Sanforising</li> <li>Anti-static</li> </ul>	(2 x 1)	(2)
Q02(c)	Four main stages given	(2 / 1)	
002(0)	<ul> <li>Stage 1 Tie /knot/fold/twist/bind/gather the fabric randomly/regular pattern</li> <li>Stage 2 given in question</li> <li>Stage 3 Rinse/wash until colour stops coming out</li> <li>Stage 4 Leave to dry / take out the ties</li> </ul>		
	Stage 5 Iron	(4 x 1)	(4)
Q02(d)	Three given from:		
	<ul> <li>Pattern pieces lie in the same direction</li> <li>Grain lines run parallel to the selvedge/warp/are straight</li> <li>Plan placement of pattern carefully before cutting</li> <li>Position patterns similarly on right &amp; left side/front and back/centrally/at seams</li> <li>May need to cut single layers rather than double</li> </ul>		
		(3 x 1)	(3)
		Total	11

Question Number	Answer	Mark
Q03(a)	Two characteristics given from: • Long fibres (1) • Strong (1) • Smooth (1)	
	(2 x 1)	(2)
Q03(b)	One description: Inner core is covered with an outer layer of overlapping scales	
	(only answer) (2 x 1)	(2)
Q03(c)	Three properties from:	
	<ul> <li>Not very absorbent/dry quickly (1)</li> <li>Strong / hardwearing / durable (1)</li> <li>Weak when wet(1)</li> <li>Can be soft (1)</li> <li>Can be fine (1)</li> <li>Can be coarse(1)</li> <li>Good resilience (1)</li> <li>Shrinks when heated (1)</li> <li>Burns slowly and melts (1)</li> </ul>	
	• Modacrylic is flame resistant (1) (3 x 1)	(3)
Q03(d)	<ul> <li>Two features from:</li> <li>Warp- Yarns knitted vertically, weft - Yarns knitted horizontally</li> <li>Warp-Each loop in the chain interlocks with the one in the row below and above, weft - Row of loops formed along the length of the yarn</li> <li>Warp -Industrial process only, weft Can be made by hand or machine</li> <li>Warp -Mostly made from filament yarns, weft Both staple &amp; filament yarns can be used (2 x 1) (2 x 1)</li> </ul>	(4)
	Total	22
	Total for paper	44

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