

AS Level DESIGN AND TECHNOLOGY (FASHION & TEXTILES)

Mark scheme

Version 1.0

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this mark scheme are available from aqa.org.uk

Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly level 3 with a small amount of level 4 material it would be placed in level 3 but be awarded a mark near the top of the level because of the level 4 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the Indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

Qu	Part	Marking guidance			АО
		SECTION	N A – TECHNICAL PRINCIPLES		
1	Correct answer D Ramie				AO4
2	1 mark for each correct answer, up to a maximum of 3 marks.			3 marks	AO4
		Commercial name Classification of fibre or fabric			
		Tactel®	Nylon/Polyamide	-	
		Modal®	Regenerated cellulose (accept Lyocell)		
		Tencel®	Regenerated cellulose/Lyocell		
				1	
3		Recognise that two groups (wool / cotton/viscose) (1 m	of socks do not contain synthetic fibres ark)	2 marks	A04
		26 000 + 34 000 / 200,000 >	x100		
		= 6/20 x 100			
		= 30% (1 mark)			
4		Correct answer = B Denim		1 mark	AO4

		6	AO3
5-6 marks	Comprehensive evaluation of the dangers when using dyes and justifies the need to control hazardous substances. Candidate will refer to the dangers in detail, explain the benefits of using risk assessments, the importance of safety measures and what might happen if hazardous substances are not handled appropriately. Candidate presents a reasoned argument as to the importance of controlling hazardous substances.	marks	
3-4	Some evaluation of the dangers which may be more		
marks	general but makes some reference to use of dyes. May refer to risk assessments. Will give some suggestions for safety measures. Candidate will make a judgement as to the importance of controlling hazardous substances.		
1-2 mark	Basic information with few points concerning dangers of using dyes. May refer to risk assessments and safety measures. Little evaluation of the importance of handling hazardous substances safely and putting controls in place.		
0 marks	Nothing worthy of credit		
o mamo	Treating worthly or oroun		
• Inh lon	ergic reactions and cancer. Italing dust may cause immediate breathing difficulties and g term health issues. In contact with dyes may cause skin damage, allergic actions and cancer.		
• Ide	entifying hazardous substances fety measures put in place		
WaProTic cleSa	easures: aining of work force including safe handling of materials arning labels/signs otective clothing by and organised work space including handling spillages and aning fe disposal of waste intilation		
	vices for: orage of dyes easuring quantities of dyes		
Important	to control hazardous substances to protect work force and		

abide by legal requirements for safety in the workplace. It is important that employers know the dangers, understand the requirements and put safety measures in place so that the hazardous substances are

effectively controlled.

Students may make valid points about other chemicals involved in dyeing e.g. mordants.

Award any other valid response.

5-6 marks	Demonstrates excellent knowledge and understanding	6	AO.
	of a wide variety of points. Explains in detail how	marks	,
	computers can replace the need for fabric		
	prototypes/samples and is likely to refer to virtual		
	modelling and give a commercial context in their		
	answer. At the top end of mark band student will refer		
	to aspects of both developing and presenting ideas.		
3-4 marks	Demonstrates good knowledge and understanding of a		
	variety of points and provides some detail in their		
	explanation. May refer to only developing or presenting		
	ideas but in this case, includes more points than just		
	those relating to colour and pattern.		
1-2 marks	Demonstrates basic knowledge and understanding with		
	little or no explanation. May only mention the most		
	obvious points concerning colour and pattern.		
0 marks	Nothing worthy of credit		
Indicative co	ontent:		
• 3-D \	/irtual modelling to show idea from every point of view		
• 3-D \ • Fabri	/irtual modelling to show idea from every point of view c samples can be scanned and used in modelling to show		
• 3-D \ • Fabri	/irtual modelling to show idea from every point of view c samples can be scanned and used in modelling to show ce colour, texture and pattern.		
3-D \ Fabri surfa Colou	/irtual modelling to show idea from every point of view c samples can be scanned and used in modelling to show ce colour, texture and pattern. urways and styling details can be tested		
3-D \Fabri surfaColouDrapo	/irtual modelling to show idea from every point of view c samples can be scanned and used in modelling to show ce colour, texture and pattern. urways and styling details can be tested e can be simulated as movement and can be incorporated		
 3-D N Fabri surfa Color Drapo into p 	/irtual modelling to show idea from every point of view c samples can be scanned and used in modelling to show ce colour, texture and pattern. urways and styling details can be tested e can be simulated as movement and can be incorporated presentation to imitate product in use.		
 3-D \ Fabri surfa Colou Drapo into p Back 	/irtual modelling to show idea from every point of view c samples can be scanned and used in modelling to show ce colour, texture and pattern. urways and styling details can be tested e can be simulated as movement and can be incorporated presentation to imitate product in use. ground contexts can be included to promote the product		
 3-D N Fabri surfa Colou Drape into p Back Can I 	/irtual modelling to show idea from every point of view c samples can be scanned and used in modelling to show ce colour, texture and pattern. urways and styling details can be tested e can be simulated as movement and can be incorporated presentation to imitate product in use. ground contexts can be included to promote the product be presented or emailed to client for feedback during		
 3-D N Fabri surfa Color Drape into p Back Can be devel 	/irtual modelling to show idea from every point of view c samples can be scanned and used in modelling to show ce colour, texture and pattern. urways and styling details can be tested e can be simulated as movement and can be incorporated oresentation to imitate product in use. ground contexts can be included to promote the product be presented or emailed to client for feedback during dopment of idea		
 3-D N Fabri surfa Color Drapo into p Back Can leadered 	/irtual modelling to show idea from every point of view c samples can be scanned and used in modelling to show ce colour, texture and pattern. urways and styling details can be tested e can be simulated as movement and can be incorporated presentation to imitate product in use. ground contexts can be included to promote the product be presented or emailed to client for feedback during		

7	suit	ndidate shows excellent understanding of the ability and detailed knowledge by including a wide ety of detailed points that relate directly to the dress.	6 marks	AO4
	and	ndidate shows some understanding of the suitability good knowledge, including why the fabric is a able choice with some detail that relates to the ss.		
		ic knowledge and understanding with few properties olyester simply stated but not related to the dress.		
	0 marks Not	hing worthy of credit.		
	can be fin resistance care althowell, does Thermople	is a suitable choice of fabric for the dress because it e and soft, drapes well and has very good crease e, very strong, resistant to abrasion, light weight, easy ugh a high temperature wash will spoil pleats, dries in't need to be dry cleaned. astic so that it can be heat set into pleats. holds colour well.		
	breathable, comfo	pray refer to the fact it can be engineered to be cortable and cool but is prone to static as it is non-should also be given for these points.		
	Award any other	,		

8	1	One point for any of the following to a max of 3	3	AO4
			marks	
		The repeat needs to be taken into consideration when laying out		
		pattern pieces so that the pattern is centralised		
		The repeat needs to be matched across sections of the garment		
		for aesthetic appearance		
		The pattern repeat will determine the length of fabric required for		
		a textile product; a large repeat will need more fabric and it will		
		create more waste when matching the pattern at every seam.		
		 Matching the pattern repeat will make a high quality garment. 		
		The layout has to ensure that all pattern template pieces face		
		the same way to avoid upside down designs or different		
		directional shading.		
		The nap may cause the garment to feel different according to the		

direction in which the pattern pieces are laid e.g. velvet.	
Points relating to cost should not be awarded credit as students have been given this information in the question.	
Award any other valid response.	

8	2	Fabric 1:	6	AO4
		Number of pattern repeats in 4 metres is 400/75 = 5.333.	marks	
		Therefore 6 pattern repeats are needed for each dress.		
		Amount of fabric required per dress is 6 x 75cm = 4.50 metres.		
		(1 mark)		
		A.E. matures of fabric at C10 non-mature in CE1		
		4.5 metres of fabric at £12 per metre is £54. Fabric for 5000 dresses is £54 x 5000 = £270,000. (1 mark)		
		Fabric for 5000 dresses is £54 x 5000 = £270,000.		
		Fabric 2:		
		Number of pattern repeats in 4 metres is $400/60 = 6.666$.		
		Therefore 7 pattern repeats are needed for two dresses (1 mark)		
		2 dresses cut side by side will require 7 pattern repeats		
		Amount of fabric required for 2 dresses is 7 x 60cm = 4.20 metres.		
		Or 1 drags is aquivalent to 2 F nottorn reports as amount of fabric		
		Or 1 dress is equivalent to 3.5 pattern repeats so amount of fabric required for 1 dress is 3.5 x 60cm = 2.10 metres		
		1 required for 1 dress is 5.5 x 500m = 2.10 metres		
		(1 mark)		
		40 4 661 4 604 65		
		4.2 metres of fabric at £31.95 per metre is £134.19		
		Fabric for 5000 dresses is $\frac{£134.19 \times 5000}{2} = £335,475$		
		2		
		On 0.4 markets of fall via at 004.05 may 1, 1, 207.40 (207.005)		
		Or 2.1 metres of fabric at £31.95 per metre is £67.10 (£67.095)		
		Fabric for 5000 dresses is £67.10 x 5000 = £335,500 (1 mark)		
		(Tillark)		
		Difference in price for 5 000 dresses between Fabric 1 and Fabric 2 is		
		£335,475 - £270,000 = £65,475.		
		Or £335,500 - £270,00 = £65,500 (1 mark)		

9	6-8 marks	Candidate shows detailed analysis of the social, moral and environmental issues considered in the design of an outdoor jacket. Explains how several aspects of the jacket design might be influenced by these issues and gives a detailed range of specific examples of the wider issues. Information is accurate and clearly related to the outdoor jacket.	8 marks	AO3/4
	3-5 marks	Candidate shows good analysis of the social, moral and environmental issues considered in the design of an outdoor jacket. Information will be mainly accurate and some of these issues will be explained including relevant examples of wider issues.		
	1-2 marks	Candidate shows basic analysis of the social, moral and environmental issues considered in the design of an outdoor jacket. Simple points given to explain one or more issues which may be inaccurate confused or have little relevance to the outdoor jacket.		
	0 marks	Nothing worthy of credit. ontent:		
	 Choi well Sustantifriend The example of the production of colloose Required protesting outdent out	g points need to be considered by the designer: - ce of materials influenced by safety and sustainability as as by suitability, performance and fitness for purpose. ainable choice of materials such as organic, non-toxic, eco- dly or recycled materials. wider issues linked to the aesthetics of the coat for hele, social and moral issues regarding the use of animal r the colour, style and images, slogans and logos used that reinforce gender stereotypes. use, care and disposal of the selected materials for the uct. The wider issues associated with the laundering irements of the outdoor jacket at its end of life. Should high gry consumption temperatures or toxic chemicals be led during its cleaning? Can the product be taken apart and cled at the end of its useful life as a coat? elling to encourage sustainability for example, how to care he product with less of an impact on the environment, or to hurage the coat to be passed on to a new owner after use. he being used for practical activities or by children, the length rds and drawstrings around hoods or the neck area or he parts that could be a choking hazard. He issues associated with brand hirement for clothing to comply with legislation used to he consumers. The product design should make the hoor jacket not only fit for purpose but also of satisfactory ty and as described on any labelling. Sive design, for example with the suitability of the coat for		

	 1
children, the elderly or those with disabilities.	
Award any other valid response.	

10	Length of frill: -				3 marks	AO4
	Accept cos 45 or sin 45 in t	the following metl	nods: -		marks	
	h is the short distance acro	ss the base to the				
	$\cos 45 = \frac{h}{5}$	or	$\sin 45 = \frac{7}{5}$	5		
				(1 mark)		
	$h = 5 \cos 45$	or	5 sin 45			
	h = 3.5 (1 d.p.)			(1 mark)		
	Length of base of large tria = 136.5 cm	nngle = 140 - 3.5				
	$\cos 45 = 136.5 / XY$					
	$XY = \frac{136.5}{\cos 45}$					
	XY = 193 cm (1 d.p.)			(1 mark)		
	Note: There are alternation each valid method should follows:					
	Alternative method d is the diagonal length in t	the small triangle				
	$\tan 45 = \frac{d}{2.5}$			(1 mark)		
	d = 2.5 tan 45 d = 2.5 (can also be seen fr	om symmetry)		(1 mark)		
	Diagonal of big square = D $D^2 = 140^2 + 140^2$ $D^2 = 39200$ $D = \sqrt{39200}$ D = 198 cm So XY = D - 2.5 - 2.5					
	XY = 198 - 2.5 - 2.5 XY = 193 cm (1 d.p.)			(1 mark)		

SECTION B – DESIGNING AND MAKING PRINCIPLES

			4	AO4
3-4 marks	Candidate demonstrates a detailed		marks	
	understanding of why market research is			
	important with a number of well explained			
1-2 marks	points Candidate demonstrates a basic			
1-2 IIIaiks	understanding of why market research is			
	important with a number of points explained in			
	limited detail or one point well explained.			
0 mark	No work worthy of credit.			
	The manner of the second			
Indicative co				
I Market resear				
	ch is important because:			
 client p 	profiling gives an understanding of the interests, ne			
 client p and wa 	profiling gives an understanding of the interests, nearts of the client that will influence design decisions	5		
client pand waidentify	profiling gives an understanding of the interests, nearts of the client that will influence design decisions ring target market gives an understanding of the type	5		
client p and wa identify individual	profiling gives an understanding of the interests, neants of the client that will influence design decisions ying target market gives an understanding of the typus who might buy and use a product	pe of		
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 client p and wa identify individed inform shop s which it 	profiling gives an understanding of the interests, neants of the client that will influence design decisions wing target market gives an understanding of the typual who might buy and use a product onnaires/opinion polls collect data that can be used design decisions urveys give a better understanding of the context in the product is sold and how shoppers are influence	pe of		
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 client p and wa identify individed inform shop s which is make p producted trend for more of the shop so the sh	profiling gives an understanding of the interests, nearts of the client that will influence design decisions wing target market gives an understanding of the typual who might buy and use a product onnaires/opinion polls collect data that can be used design decisions urveys give a better understanding of the context in the product is sold and how shoppers are influence ourchases which will impact on the success of the corecasts enable designers to make design decision	pe of I to n ed to		

12	Width of fabric = $50+70+10 + x$	4	AO4
	= 130 + x (1 mark)	marks	
	x = 80 x tan 10°(1 mark) =14.106 (1 mark) Width = 130 + 14.106 = 144.106 = 145cm (1 mark)		

13	1			9	AO3/4
		7-9 marks	Demonstrates comprehensive analysis and evaluation, in explaining how a wide variety of Alexander McQueen's fashion designs are inspired by the theme of nature and can give a range of specific examples from more than one fashion collection. Detailed understanding of which aspects of nature have inspired designs and how these have translated into designs. At the top of this mark band, candidate will make reference to themes of nature.	marks	
		4-6 marks	Demonstrates some evaluation and analysis, in explaining how a variety of patterns and colours from some aspects of nature inspire the fashion designs. One or more fashion collection referenced, with some understanding shown through examples of specific designs described.		
		1-3 marks	Demonstrates basic analysis but little evaluation in describing inspiration from nature such as use of feathers in fashion designs, giving little information and few specific examples. Candidate may describe some inspiration from nature but give little further information so understanding will be limited. Little or no reference to specific fashion collections.		
		0 marks	Nothing worthy of credit.		
		collections a including fas Indicative c Exan	may give examples from any one of Alexander McQueen's nd should be given credit for any appropriate fashion item shion accessories. ontent: nples of themes in nature such as evolution, exoticism, nment, metamorphosis, mythical creatures		
		Inspire use of Special of Cuther British address and the British address and the British address address address address address and the British address			

Collections such as:
'It's a Jungle Out There' – animal skins, crocodile heads, horns. Theme of battle between life and death, predators.

'Eshu' – Hair with glass beads, leather. Theme of time passing and ageing.

'The Horn of Plenty' – Black/white duck feathers, Theme of freedom and captivity.

'Plato's Atlantis'- snake skins, jelly fish. Theme of metamorphosis, subterranean.

Award any other valid responses.

13	-			9	AO3/4
		7-9 marks	Indidate understands that digital printing involves imputer technology to print from computer screen to pric. Excellent knowledge and understanding with tailed analysis and evaluation of advantages of digital inting compared to traditional methods of printing. Indidate knows what is meant by digital printing and plies understanding to the fine quality of print seen in express in Figure 7. A wide range of points to justify gital printing are explained with a reasoned argument to the advantages of using digital printing.	marks	
		4-6 marks	Good knowledge and understanding of digital printing with good analysis and evaluation of a variety of advantages of digital printing. Candidate understands what is meant by this method and makes reference to the complexity of the print design in Figure 7. Some conclusion is given as to the reasons for using digital printing.		
		1-3 marks	There may be some confusion about digital printing and knowledge and understanding is limited to only a few points. Basic analysis and evaluation of the digital print design in Figure 7. A few advantages of digital printing will be given but may be lacking in detail. May be little or no conclusion of the reasons for using digital printing.		
		0 marks	Nothing worthy of credit.		
		Poss reproTona	ontent: cable technique due to: - ible to print very fine detail due to photographic quality of oduction. Il variation can be printed in a full range of colours to give blex and subtle effects.		
		• Com	puter aided design can be linked directly to manufacture.		

• Print sampling can be rapid and edited efficiently to respond to customer requirements.

- Traditional methods of time consuming and expensive sampling are eliminated.
- The speed of the technology enables businesses to respond rapidly to changing markets.
- Cost effective for niche markets.
- Print designs are computer generated and can be emailed to customer for approval.
- Prints can be customised for individual bespoke orders.
- Individual customers can upload their own designs to make fabric prints.
- Sampling can be kept to the minimum as designs can be viewed on screen.
- Wide range of fabrics can be printed on including both natural and synthetic fabrics.
- Prints can be made on demand so no requirement to hold stock.
- · Cost effective to print small quantities.

Digital printing is a technique that makes very fine detail possible, it is quick and cost effective to alter and sample designs, can be used to respond quickly to changes in the market and the need to individualise orders.

Award any other valid responses.

13	3	1 mark for any appropriate answer up to a maximum of 3 marks. Indicative content:	3 marks	AO3
		 dress can be made to exact requirements to fit client a customised garment is made to client's choice of detail finishing detail can be completed by hand to ensure a high quality product client will benefit from owning a unique garment to ensure customer satisfaction as new methods of manufacturing clothing using CAM can customise designs to fit individual customer requirements Award any other valid responses.		

14			6	AO4
	5-6 marks	Demonstrates excellent knowledge and understanding with clear detail that includes a wide range of different points. Will refer to fair trade and sustainability. Will consider sustainable use of materials and may also refer to sustainable techniques.	marks	
	3-4 marks	Demonstrates good knowledge and understanding with a range of points some of which are in detail. Will refer to fair trade or sustainability. May include points about use of sustainable materials or techniques.		Or
	1-2 marks	Demonstrates basic knowledge and understanding with only a few points with little or no explanation. Little or no reference to sustainability or fair trade. Is likely to include the most obvious points concerning recycling.		
	0 marks	Nothing worthy of credit.		
	Indicative c Ethical responsion of the constraint of the constrain			
	Award any o	ther valid responses.		

