CONFERENCE VERSION

GCE A LEVEL MARKING SCHEME

AUTUMN 2020

A LEVEL
DESIGN & TECHNOLOGY – FASHION & TEXTILES
A601U10-1

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INTRODUCTION

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

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GCE A LEVEL DESIGN AND TECHNOLOGY

AUTUMN 2020 MARK SCHEME

COMPONENT 1 - FASHION AND TEXTILES

Question 1

Madeleine Vionnet was considered a revolutionary designer in the early 1900s and is credited with being the creator of the bias cut dress shown below.

(a) Explain what is meant by the term 'bias cut'.

(b) Describe how fashion history influences designers and what effect the bias cutting technique has on contemporary clothing.

Q1	Science	Maths		**AO3**		**AO4**					**Total**
				2a	2b	1a	1b	1c	2a	2b	
(a)						2					2

Candidates should demonstrate knowledge of technical principles and awarded up to 2 marks.

No response or an inappropriate response – 0 marks

Responses should be based on:

The bias is found at a 45° angle to the warp yarns or selvedge edge [1];
Templates can be laid out with the straight of grain instruction following this diagonal line [1]; this means templates are cut on the bias [1]; which allows more stretch in the cut pieces. [1]

Credit any other appropriate response including diagrams that fully explains.

(b)							4	2			6

Candidates should demonstrate understanding of technical principles and apply it to specific appropriate points and awarded up to 6 marks.

No response or an inappropriate response – 0 marks

Responses should be based on:

- Historical fashions can inspire contemporary designers [1]; ideas for pattern cutting can be studied [1]; aesthetic styling can inspire (*various aspects relating to this might be referenced*) [1]; use of fabrics can be studied [1].
- Bias cutting gives more stretch in the fabrics [1]; this allows for a better fit - closer to the contours of the body [1]; bias allows garments to drape better [1] it also gives a more glamourous and slim silhouette [1]; can improve the functionality of products by improving the fit [1]; offers stretch and malleability and can be moulded to take shape [1]; easy flow and comfortable skimming the body [1];

Credit any other appropriate descriptive response.

Both parts of the question need to be discussed for full marks.

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Question 2

The tent below has been made from a closely woven nylon fabric.

(a) Explain why a closely woven nylon fabric is suitable for the tent.

(b) The internal seams used to construct the tent are either double stitched or bound. Explain why both these construction methods are suitable for the tent.

(c) The tent is no longer waterproof and needs reproofing. This can be achieved by using a waterproofing spray like the one shown opposite.

- One can will cover an area of 2.5m².

Calculate how many cans will be needed to proof the whole tent.

Do not include the ground sheet base in your calculations but you may round your answers to two decimal places.

You must show all your workings

Q2	Science	Maths		**AO3**		**AO4**					**Total**
				2a	2b	1a	1b	1c	2a	2b	
(a)							2		2		4

Candidates should demonstrate understanding of technical principles and design and make principles and awarded up to 4 marks.

No response or an inappropriate response – 0 marks

Responses may include:

- A very close weave - yarns densely packed together – makes the fabric windproof [1]; this does not allow wind to penetrate as there are no gaps between the yarns [1].
- Nylon is a very strong fibre with good resistance to wear and tear [1]; this means the fabric will withstand forces [1]; nylon has a high extensibility rate [1]; it will withstand being stretched over a frame [1] and being under tension [1]; it is also lightweight ideal for a tent [1].

Credit other appropriate responses.

Both nylon and close weave needs to be discussed for full marks.

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(b)						2		2			4

Candidates should demonstrate knowledge and understanding and apply it to technical principles and awarded up to 4 marks.

No response or an inappropriate response – 0 marks

Responses should be based on:

- Double stitched seams have two rows of stitching which adds strength to the seams [1]; in double stitched seams the seam allowances are overlapped or folded back and then stitched down with two rows of stitching [1]; if the product is under pressure (stretched over a frame) double stitching is less likely to become undone [1].
- A binding is stitched over the seam allowance this adds strength to the seams [1] as they are stitched in a normal seam first then the binding is placed over that seam allowance and stitched in place [1]; two rows of stitching will prevent the stitching becoming undone [1] stronger and will resist wear [1]; as seam allowances are not exposed this will support wear and tear [1].

Credit any other appropriate response.

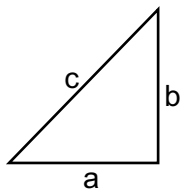
Both seam methods should be discussed for full marks.

(c)		6					2	7			9

Candidates should demonstrate knowledge and understanding of technical principles and its application in this context to be awarded up to 6 marks based on:

Responses should be based on:

- To calculate the surface area end triangles (isosceles)
  0.65 (½ base) x 1.75 (height) x 2 (triangles) [1 mark]
  Surface area 2 triangular ends = 2.28m² [1 mark]
- Calculate short end of the rectangular sides



$\sqrt{}$ $a^2 + b^2 = c^2$ (square root) $\sqrt{}$ $0.65^2 + 1.75^2$ [1 mark]
$\sqrt{}$ 0.4225 + 3.065 [1 mark]
c = 1.8665 (round up to 1.87) [1 mark]

- Side panels surface area 3.5 x 1.87 x 2 = 13.09m² [1 mark]
- 13.09 + 2.28 = 15.37m² (total surface area) [1 mark]
- 15.37m² divided by 2.5m² (coverage of spray) = (6.15) [1 mark]

Answer: **7 cans** [1 mark]

Accept other methods of calculation.

All calculations need to be shown for full marks.

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Question 3

The throw/blanket shown below has been woven using a fancy textured bouclé yarn spun from alpaca fibres.

(a) Explain how texture can be added to create fancy yarns and why this would be beneficial when making products like the throw/blanket.

(b) Describe the properties of the alpaca fibre that make it a suitable fibre for the throw/blanket.

Q3	Science	Maths		AO3		AO4					Total
				2a	2b	1a	1b	1c	2a	2b	
(a)						4					4

Candidates should demonstrate knowledge of technical principles and awarded up to 4 marks.

No response or an inappropriate response – 0 marks

Responses should be based on:

- Special spinning processes give irregularities to the yarn [1]; this creates textured yarns such as chenille, boucle, loop and slub [1]; yarns of different colours and thicknesses can be mixed [1]; texturing adds bulk (thickness) making yarns warmer ideal for a blanket [1]; warm air gets trapped in between the fibres – cannot escape – which makes the fibres warmer [1] can also give a much softer handle [1].
- Textured yarn is made from thermoplastic synthetic filament yarns [1]; finished through a heat process which adds crimps, coils or loops along the length [1].

Credit other appropriate responses.

For full marks, responses must include reference to texturing yarns and its suitability for the product.

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(b)									4		4

Candidates should demonstrate knowledge of design and make principles and awarded up to 4 marks.

No response or an inappropriate response – 0 marks

Responses should be based on:

- Alpaca is a fine hair from the llama [1]; alpaca fibre is similar to wool fibre and has similar properties to other wool fibres [1]; while similar to sheep's wool, alpaca fibre is warmer and not so prickly [1]; has no lanolin, which makes it hypoallergenic [1].
- It is light or heavy in weight, depending on how it is spun [1]; it is a soft [1]and durable [1], a luxurious naturally silky fibre [1].
- Wool has a natural crimp (wave) within the fibres [1]; the crimp creates air pockets that trap heat [1]; adds the warmth needed in a throw/blanket [1]; wool is fully washable with care [1] so maintenance is straightforward [1].

Credit other appropriate responses.

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Question 4

Personal electronics are advancing towards a point where multi-functionality and wearability are set to become one of the most important trends.

(a) With reference to the concept product shown below, explain how technology has advanced to facilitate this upcoming trend.

(b) In 2018 wearable technology was worth £150 million of the UK textile market share. The rise in demand for interactive multi-functional clothing is set to rise dramatically over the next few years and wearable technology is predicted to significantly increase its market share.

(i) Calculate the value of wearable technology as a percentage (%) of the total UK textile clothing market share in 2018.

Present your answer to two decimal places.
Show all your workings

(ii) The value of the UK market is expected to rise by 35% by 2025. The market share of wearable technology is predicted to rise to 23% of the total market.

Calculate the value in (£) pounds of wearable technology in 2025.

Show all your workings

Q4	Science	Maths		**AO3**		**AO4**					**Total**
				2a	2b	1a	1b	1c	2a	2b	
(a)	✓					2	2				4

Candidates should demonstrate knowledge and understanding of technical principles and awarded up to 4 marks.

No response or an inappropriate response – 0 marks

Responses should be based on:

- Nano or micro Technology is now sufficiently developed to be fully integrated into clothing [1]; conductive fibres facilitate this [1]; conductive fibres can be knitted or woven into fabrics [1] and are hardly visible as hidden in the construction of the fabric [1]; conductive fibres are flexible [1]; conductive fibres can now also be washed in a standard washing cycle making them suitable for integration into clothing [1]; consumer demand for technologically advanced products such as that shown creates a demand that technologists respond to [1]; wearing technology appeals to consumers as it eliminate the need to carry gadgets [1]; renewable energy sources – green energy/solar - power is now sufficiently advanced to be fully integrated into clothes [1].

Credit any other appropriate response.

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(b) (i)		2						2			2

Candidates should demonstrate knowledge and understanding of technical principles and its application in this context to be awarded up to 2 marks.

No response or an inappropriate response – 0 marks

Responses should be based on:

- Add up all the values as indicated on the chart = £4075 million [1 mark]
- $\frac{150}{4075}$ x 100 = 4% [1 mark]

Accept other methods of calculation.

All calculations need to be shown for full marks.

(ii)		4						4			4

Candidates should demonstrate knowledge and understanding of technical principles and its application in this context to be awarded up to 4 marks.

No response or an inappropriate response – 0 marks

Responses should be based on:

- $\frac{4,075}{100}$ x 135 (calculating 35% growth in value (£) of market) [1 mark]
- Predicted value in 2025 = £5501.25 million [1 mark]
- $\frac{23}{100}$ x 5501.25 (calculation of value as a % of predicted total) [1 mark]
- Correct answer: £1,265.29 million [1 mark]

  Accept rounded answers £1,265,000,000

Accept other methods of calculation.

All calculations need to be shown for full marks.

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Question 5

Tucks and pleats are often used by fashion and textile designers to shape products such as the skirt shown below.

(a) Using notes and sketches explain how you would construct a series of equally sized pleats in the top of a skirt like the one shown.

(b) Explain why 100% polyester would be a suitable fabric for a permanently pleated skirt.

Q5	Science	Maths		AO3		AO4					Total
				2a	2b	1a	1b	1c			
(a)						2	3				5

Candidates should demonstrate knowledge and understanding of technical principles and awarded up to 5 marks.

No response or an inappropriate response – 0 marks

Responses should be based on:

- Decide on the depth/width of each pleat [1]
- Decide on how much fabric will form the folded back part of the pleat [1] (this will be dependent on type of pleat)
- Indicate the space between each pleat [1]
- Add all these measurements together and mark out (could refer to tailor tacks to marks positions) where the fold sections are for each pleat [1] indicate where the pleats come together [1] before stitching in place [1].
- Show direction of where fabric will be folded [1].



Assess the work as a whole and credit both diagrams and notes to explain the concept. Apply a best fit when awarding marks.

Different types of pleats may be discussed but the principles of creating pleats are the same; credit other appropriate responses.

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(b)	✓						5				5

Candidates should demonstrate knowledge and understanding of technical principles and awarded up to 5 marks.

No response or an inappropriate response – 0 marks

Responses should be based on:

- Polyester is a thermoplastic [1]; it can be permanently heat set into pleats [1]; once set the pleats will remain in place [1]; the pleats will stay in place through washing [1]; polyester is a lightweight fibre ideal for clothing [1]; easy care as quick drying [1]; crease resistant so will not require ironing so pleats are unaffected [1].

Credit other appropriate responses.

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Question 6

Many fashion and textile manufacturers operate a just-in-time system (JIT) for stock control.

Discuss the advantages and disadvantages of operating a JIT system within the clothing and textile manufacturing industry.

Q6	Science	Maths		AO3		AO4					Total
								2a	2b	2c	
									5		5

Candidates should demonstrate understanding of design and make principles and awarded up to 5 marks.

No response or an inappropriate response – 0 marks

Responses should be based on:

- Stock arrives just as needed and taken onto factory floor almost immediately [1]

Advantages:

- No warehousing to keep raw materials reduces costs [1]
- Keeping high levels of stock in the factory is costly [1] warehouse costs removed [1] space needed for a warehouse is not needed further reducing costs [1]
- An efficient system, stock delivered to point of need immediately [1]
- Finished stock is not held and is sent to distribution cutting costs [1]
- A faster turnaround of stock prevents goods becoming damaged or obsolete while sitting in storage
- JIT inventory management is ideal for smaller companies that don't have the funds available to purchase huge amounts of stock at once [1]; ordering stock as and when it's needed helps to maintain a healthy cash flow [1]

Disadvantages:

- It is dependent on stock being delivered at time of need [1]; breaks in delivery can hold up production which will create additional costs [1]
- Essential to have reliable suppliers [1] quality of their products is paramount to a successful production [1]; sub-standard products delay production [1]
- Risk of running out of stock [1]; by not carrying much stock, it is important you have the correct procedures in place to ensure stock can become readily available, and quickly [1] so to do this, you need to have a good relationship with your supplier(s) [1].
- You may need to form an exclusive agreement with suppliers that specifies supplying goods within a certain time frame, prioritising your company [1].
- JIT means that you are extremely reliant on the consistency of your supply chain [1]; if your supplier struggles with your requirements, or goes out of business, can you get the products quickly from somewhere else? [1]

Both advantages and disadvantages should be discussed for full marks.

Credit any other appropriate response.

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Question 7

Modelling and testing of ideas is an important part of the iterative process of developing fashionable clothing products.

(a) Evaluate the importance of modelling and testing products through the production of toiles in fashion design.

(b) Analyse the impact 3D printers are making on the development of fashion products.

Q7	Science	Maths		AO3		AO4					Total
				2a	2b	1b	1c	2a	2b	2c	
(a)					4		2				6

Candidates should show knowledge and understanding, clear evidence of appraisal and/or making judgements and **apply** this to technical principles to be awarded up to 6 marks.

Responses should be based on:

- Testing products in reality through toiles gives a significantly better understanding of the product
- The fit of a product can only be tested in reality; small adjustments can be made to templates to improve products whilst being fitted on a body
- The proportions on a body cannot be so accurately judged unless in reality
- Fabrics can be tested to see how they drape cannot do that in any other way
- Construction processes can be tested, seam types and best sequence for manufacture
- Initial wearer trials can take place to assess wearability and how a product might perform in use
- A toile is a 3D fabric version of a 2D design sketch
- It is important that designers use a toile as an initial fashion design may not look as good in 3D form as the 2D flat paper design.

Credit any other appropriate response.

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	Marks	AO3 2b	Marks	AO4 1c
2	**3-4**	Good evaluation of the importance of testing through the production of a toile. A sound discussion which appraises and/or makes judgements about testing in development. Generally well-considered, relevant issues used as a context for the discussion.	**2**	Applies a sound knowledge and understanding of technical principles relating to testing/production of toiles during development.
		There is a line of reasoning which is generally coherent, mainly relevant and with some evidence and structure.		
1	**1-2**	Limited evaluation of the importance of testing through the production of a toiles. Little evidence of appraising or making judgements about QC in manufacturing.	**1**	Applies a basic knowledge and understanding of technical principles relating to testing/production of toiles during development.
		There is limited evidence of relevant examples or structure.		
	0	No response or work that is worthy of a mark.		

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Q7	Science	Maths		AO3		AO4					Total
				2a	2b	1b	1c	2a	2b	2c	
(b)	✓			4						2	6

Candidates should provide evidence of either deconstructing information, find connections and/or logical chains of reasoning and **apply** it appropriately to design and make principles to be awarded up to 6 marks.

Responses should be based on:

- A 3D form is immediately available and can be tested
- Component parts can be made with no waiting time and can be tested immediately
- Innovative or radical new shapes can be created which cannot be achieved any other way
- Allows designers to expand beyond the traditional boundaries of design, allowing them to turn some of the most challenging design concepts into reality
- Products such as shoes can be created and testing in reality immediately this speeds up the development process
- As some 3D products are complete there are no other manufacturing costs
- Properties can be embedded in specifically defined areas of a textile. For example, you can create a specific textile that is waterproof, opaque, flexible or rigid and then combine these elements together, meaning that these properties can all be present in a single garment
- Designers are free to create intricate geometries and structures, aesthetically pleasing but can add smart functionality – instead of using buttons to bring areas together designers can integrate a locking function directly into the textile itself, by making certain areas adhesive
- Clothing can be created to perfectly fit the size and curvature of each part of the body, allowing for true personalization

Credit any other appropriate response.

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Band	Marks	AO3 2a	Marks	AO4 2c
2	**3-4**	Good analysis of the impact of 3D printers on development. A sound discussion, which deconstructs information and provides adequate connections and reasoning. Generally well-considered and relevant factors used as a context for the discussion	**2**	Applies a sound knowledge and understanding of design and make principles in the context of 3D printing in development.
		There is a line of reasoning which is generally coherent, mainly relevant and with some evidence and structure.		
1	**1-2**	Limited analysis of the impact of 3D printers on development. Little evidence of deconstructing information and limited connections are made. Few factors are identified.		Applies a basic knowledge and understanding of design and make principles in the context of 3D printing in development.
		There is limited evidence of relevant examples or structure.		
	0	No response or work that is worthy of a mark.		

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Question 8

Environmental issues continue to be at the centre of discussion in the fashion and textile industry particularly with reference to management of resources and disposal of waste.

Analyse the impact the philosophy of the circular economy would have on the environment if more designers and manufacturers adopted this approach.

Q8	Science	Maths		AO3		AO4					Total
				2a	2b	1b	1c	2a	2b	2c	
	✓			6						3	9

Candidates should provide evidence of either deconstructing information, find connections and/or logical chains of reasoning and **apply** it appropriately to design and make principles to be awarded up to 9 marks.

Responses should be based on the following points:

- The circular economy is a waste reduction concept
- The textile industry is responsible for 1000s tonnes of textile waste
- The concept is about recycling more effectively and reprocessing fibres to reintroduce them back into manufacturing cycle/product cycle avoiding creating waste – designers should in the first instance consider using recycled materials
- raw materials are kept in continual circulation
- reimagining the way fashion is designed, made, worn and reused
- Fibres can be recycled several times over but accepts at some distant point the fibres/fabric will have to be disposed of
- The aim is to reduce the need for landfill which has a detrimental impact on the environment
- Landfill and associated issues - contamination, pollution, emitting poisonous gases into atmosphere, destruction of ozone layer – are reduced as a result of a reduction in landfill
- Bio-diversity benefits if land is not used for landfill – avoids destruction or contamination of delicate ecosystems
- Reprocessing of more fibres lessens demand on land used to produce new fibres, this includes non-sustainable fibres – also benefits the eco-systems
- Reduces ecological footprint

Candidates need to fully elaborate on and justify all the points they put forward that support the circular economy approach and its impact on the environmental.

Accept other examples where candidates put forward links and explain the impact.

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Band	Marks	AO3 2a	Marks	AO4 2c
3	5-6	Excellent analysis of the circular economy and its environmental impact. A thorough discussion which deconstructs information and demonstrates logical reasoning throughout. Well-considered, relevant wider issues used as a context for the discussion	3	Applies a thorough knowledge and understanding of design and make principles in the context of the circular economy.
		There is a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.		
2	3-4	Good analysis of the circular economy and its environmental impact. A generally sound discussion which deconstructs information and demonstrates logical reasoning throughout. Generally well-considered, relevant issues used as a context for the discussion.	2	Applies a generally sound knowledge and understanding of design and make principles in the context of the circular economy.
		There is a line of reasoning which is generally coherent, mainly relevant and with some evidence and structure.		
1	1-2	Limited analysis of the circular economy and its environmental impact. Little evidence of logical reasoning about the benefits to the environment if a circular economy approach has been adopted by manufacturers and designers.	1	Applies a basic knowledge and understanding of design and make principles in the context of the circular economy.
		There is limited evidence of relevant examples or structure.		
	0	No response or work that is worthy of a mark		

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Question 9

The aim of every fashion designer or manufacturer is to sell their products to consumers.

Discuss the methods a designer or manufacturer might use to promote a new fashion product to ensure its success.

Q9	Science	Maths		AO3		AO4					Total
				2a	2b	1a	1b	1c	2b	2c	
							5		4		9

Candidates should demonstrate knowledge, and apply knowledge and understanding to technical principles, understanding and application of design and make principles to be awarded up to 9 marks based on:

Discussion should be based on the following points:

- Fashion shows, show case new collections to bring public attention to new styles
- Fashion shows often have statement concept pieces that create a talking point so the collection is remembered
- Fashion press, celebrities invited to showcase events such as fashion shows
- Top models wear the clothing – show clothes off to their best – create an impression
- Magazine shoots create publicity in fashion magazines – top models or celebrities used
- TV, Internet, blogs, various digital methods etc to bring to public attention – specifically targeting user groups
- Articles – internet or magazines – highlighting key points about a product eg. environmental credentials
- Lifestyle marketing – promote a particular lifestyle by using /wearing the product
- Film clips of products in use with consumer comments endorsing the products
- Promotional event, displays could take place within fashion stores in key locations within a shop including a shop window – they have to pay the store for this
- Paying a celebrity to endorse a product
- Setting an appropriate price for the product and advertise value for money
- Packaging for some products will support advertising
- Adding a ‘free’ gift alongside purchase
- Branding is an important marketing tool – brand loyalty

Credit any other appropriate response.

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Band	Marks	AO4 1b and 1c	Marks	AO4 2b and 2c
3	4-5	Demonstrates and applies a thorough knowledge and understanding of technical principles in the context of promotion. Well considered, relevant wider issues identified.	3-4	Demonstrates and applies a thorough knowledge and understanding of design and make principles in the context of promotion, drawing on well-considered, relevant examples.
		There is a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.		
2	2-3	Demonstrates and applies a generally sound knowledge and understanding of technical principles in the context of promotion. Generally well-considered, relevant issues identified.	2	Demonstrates and applies a generally sound knowledge and understanding design and make principles in the context of promotion. Generally well-considered examples are provided.
		There is a line of reasoning which is generally coherent, mainly relevant and with some evidence and structure.		
1	1	Demonstrates and applies a basic knowledge and understanding of technical principles in the context of promotion. Some relevant issues identified and used to support the discussion.	1	Demonstrates and applies a basic knowledge and understanding of technical principles in the context of promotion. Few examples are provided.
		There is limited evidence of relevant examples or structure.		
	0	No response or work that is worthy of a mark.		

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Question 10

All fashion and textiles products should be fit for purpose and be used or worn comfortably.

With reference to named examples, evaluate the use of ergonomic and anthropometric data in the development of fashion and textile products.

Q10	Science	Maths		AO3		AO4					Total
				2a	2b	1a	1b	1c	2b	2c	
	✓				6			6			12

Candidates should show knowledge and understanding of wider issues, with clear evidence of appraisal and/or making judgements **and** apply this to technical principles to be awarded up to 12 marks based on:

- Ergonomics defined as the interaction between the human body and products – based on applying scientific data about human beings to design
- Products should be easy and safe to use
- Products should be comfortable to use/wear
- Products should be shaped to suit the users
- Products should be shaped and sized to suit function
- Anthropometrics defined as using body sizes to improve the ergonomics of products
- Standard sizes are used in textiles which are based on average measurements taken from hundreds of people – men, women, children
- In children's clothing average sizes for ages are used
- The average size is known as the 50th percentile, most designs are based on body sizes between the 5th and 95th percentile and takes in the majority of the population
- Fashion garments can be made to suit different heights so extra-long or short lengths
- Shoes are also based on different sizes and widths of feet
- Gloves based on average hand sizes
- Frame sizes are also considered i.e. petite clothing
- Some products such as a baby carrier, adjustable features are included to suit different size people who might use the product, as well as considering the needs of the baby - also different sizes, heights and weight of child
- Ergonomics are used for load bearing products – for example rucksacks where weight needs to be evenly distributed when fully loaded

Accept other appropriate responses.

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Band	Marks	AO3 2b	Marks	AO4 1c
3	5-6	Excellent evaluation of the wider issues relating to ergonomics and anthropometrics. A thorough discussion, which appraises and/or makes judgements about ergonomics and anthropometrics. Well considered, relevant wider issues used as a context for the discussion.	5-6	Applies a thorough knowledge and understanding of technical principles to the context of ergonomics and anthropometrics.
		There is a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.		
2	3-4	Good evaluation of the wider issues relating to ergonomics and anthropometrics. A generally sound discussion, which appraises and/or makes judgements about ergonomics and anthropometrics. Generally well-considered, relevant issues used as a context for the discussion.	3-4	Applies a generally sound knowledge and understanding of technical principles in the context of ergonomics and anthropometrics.
		There is a line of reasoning which is generally coherent, mainly relevant and with some evidence and structure.		
1	1-2	Limited evaluation of the wider issues relating to ergonomics and anthropometrics. Little evidence of appraising or making judgements about ergonomics and anthropometrics Few issues are identified.	1-2	Applies a basic knowledge and understanding of technical principles in the context of ergonomics and anthropometrics.
		There is limited evidence of relevant examples or structure.		
	0	No response or work that is worthy of a mark		

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