



**General Certificate of Secondary Education
June 2013**

**Design and Technology: 45701
Textiles**

(Specification 4570)

Unit 1: Written Paper

Final

Mark Scheme

Mark schemes are prepared by the Principal Examiner 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 examiners 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 examiner understands and applies it in the same correct way. As preparation for standardisation each examiner 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, examiners encounter unusual answers which have not been raised they are required to refer these to the Principal Examiner.

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

Copyright © 2013 AQA and its licensors. All rights reserved.

Copyright

AQA retains the copyright on all its publications. However, registered schools/colleges for AQA are permitted to copy material from this booklet for their own internal use, with the following important exception: AQA cannot give permission to schools/colleges to photocopy any material that is acknowledged to a third party even for internal use within the centre.

Set and published by the Assessment and Qualifications Alliance.

Section A					
1	(a)	(i)	<p>Give two design criteria for the textile product for a child. Examples are given below:- Must be inspired by the theme of worldwide transport Must be educational and interactive</p> <p>Marks awarded as follows: No answer worthy of credit</p> <ul style="list-style-type: none"> • Be functional • Develops skills/manual dexterity/sensory/spacial awareness • Be safe/soft/no small parts/non allergenic/suitable for a child • Include decorative textile techniques • Appeal to children/target market/appropriate to age • Be colourful/bright • Be hardwearing/ washable/easy care • Be fashionable/on trend • Makes reference to a particular design feature e.g. squeaker • Include modern materials/range of fabrics/components • Cost/budget/price point information • Size information • Easy to store away • Environmentally friendly <p>1 mark each for any relevant point.</p>	0	Max 2 marks
1	(a)	(ii)	<p>Use the design brief, sketch and label two different design ideas for a textiles product for a child.</p> <p>Interactive means stimulating play/action through colour/shape/number/letter/texture/sound/smell recognition. The design ideas may use only conventional fabrics and components but might also involve electronic devices and smart and modern materials. E.g.: LED lights, optic fibres, sound recordings/can record sounds, animation devices to make parts move, thermochromatic colour change material, micro-encapsulated scents. Manual dexterity/quick response/putting in right sequence/matching pairs etc could be encouraged through play to provide an educational product that might teach numbers/colours/shapes/alphabet/hand-eye coordination skills etc.</p> <p>Two sketches to show different initial ideas for product. Candidates are not to be penalised if they do not use pencil.</p>		

		<p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Weak unimaginative idea, poorly presented. Little or no detail shown of fabrics/components and/or techniques, or idea may have little appeal to children with minimal educational or interactive features. Little reference to worldwide transport theme. May have little or no annotation to explain thinking. • A design that will appeal to children and that is inspired by the theme of worldwide transport. Fabrics/components and/or techniques will be evident. One or more features to educate and encourage interactive play. Candidate will communicate ideas. Idea is fairly well presented with some annotation to explain thinking. • A quality design that is highly creative and original. Inspiration taken from the theme of worldwide transport. Thoughtfully selected fabrics/components and/or techniques will be included. Will appeal to children, with at least two exciting educational and interactive features. Candidate will communicate ideas very clearly with excellent presentation and annotation to explain thinking and how the product works. <p>Design should be neat and clear for full marks. If both ideas are similar, mark first as it stands; alter second (1 -3 marks instead of 6).</p>	<p>0</p> <p>1 – 2 each</p> <p>3 – 4 each</p> <p>5 – 6 each</p>	<p>Max 12 marks</p>
<p>1</p>	<p>(b)</p>	<p><i>Give the age range for your chosen design idea. Explain why it will appeal to children of this age.</i></p> <p>Any age range accepted up to 12. Appeal of product should give reason linked to child development such as encourages learning, entertains child, fun activity. Idea will be new, exciting and original to the child. Candidate may expand to explain the appropriate choice of materials, product size/shape, colour, texture, special features linked to child development. Candidate might design for disabled children.</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Simple statement giving age range and 1 reason for appeal to children. Age range may not be appropriate. • Appropriate age range linked to more than one reason for appeal to children • Detailed answer to provide appropriate age range and more than one reason for appeal to children with further explanation of product features. 	<p>0</p> <p>1</p> <p>2</p> <p>3</p>	<p>Max 3 marks</p>

1	(c)	(i)	<p><i>Develop your chosen design idea from page 4 to include a fabric bag for the child's textile product.</i></p> <p>17 Marks are given for: Final design to include:</p> <p>Creativity and quality of child's textile product including fabric bag</p> <p>The following should be considered: Is the design contemporary, creative, original and imaginative? Is there a balanced composition/effective use of space, effective proportions, appropriate for intended use, will the design work? Does the bag have a carrying handle/strap/device, fastening/s? Are the child's textile product and fabric bag designed for the target market? Are textile techniques and components in keeping with the fabrics selected and theme? Does bag relate to child's textile product design e.g. based on worldwide transport theme?</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Simple, unimaginative child's textile product and may include a fabric bag design with little thought given to intended end use. Design may not be clear, overall balance weak. Techniques added as an afterthought. Fabric bag may not relate to design of child's textile product. • Simple, unimaginative child's textile product and fabric bag design with some thought given to intended end use and target market, though lack of detail. Design may not be clear, overall balance weak. Techniques added as an afterthought. Fabric bag design may relate to design of child's textile product. • Good design with clear detail about child's textile product and fabric bag. They may be simple but have some originality and is likely to be popular. Or they may be detailed and appropriate for intended use but have limited originality. Fabric bag design may relate to design of child's textile product. • Very good design with clear detail about child's textile product and fabric bag. They have some originality and are likely to be popular and will be detailed and appropriate for intended use. Fabric bag will relate to design of child's textile product and will have some complexity or original design feature. • Both child's textile product and fabric bag will be highly creative and original and likely to sell well to the target market. Very detailed and imaginative. Fabric bag design clearly relates to design of child's textile product and is designed specifically for it. 	0 1 2 3 4 5	
---	-----	-----	--	----------------------------	--

		<p>If no fabric bag is shown – then up to 4 marks only.</p> <p>Educational and interactive ideas including choice of fabrics and components for bag and textile product Interactive means stimulating play/action educating the child through colour/shape/number/letter/texture/sound/smell recognition and may also involve electronic devices and smart and modern materials as well as more traditional materials such as cotton and polyester. e.g: LED lights, optic fibres, sound recordings/can record sounds, animation devices to make parts move, thermochromatic colour change material, micro-encapsulated scents, glow in the dark material etc. Manual dexterity/quick response/putting in right sequence/matching pairs etc. could be encouraged through play.</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • One or more educational or interactive ideas are included in the design, but in a straightforward manner that has limited effectiveness and may not be appropriate, little or no thought about appropriate fabrics and components. • One or more educational or interactive ideas used to good effect and must include a few different fabrics and/or components. • More than one educational or interactive ideas that makes the product appealing to the child with a thoughtful and appropriate selection of fabrics and components. • More than one educational or interactive ideas that makes the product very exciting, may be innovative with use of a very appropriate range of fabrics and materials and very appealing to the child. <p>Effective use of colour in the design of bag and textile product This is not about colouring in of the design idea. The following should be considered: How has colour been used? Are the colours toning, contrasting, complementary? Do they work for the product? Do they promote the worldwide transport theme? Do they interest a child?</p>	<p>0</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p>	<p>Max 5 marks</p> <p>Max 4 marks</p>
--	--	---	--	---

		<p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Use of colour is immature and not used to effect or colours are described in written notes only. • Choice is used well but does not make product exciting for a child or bright colours chosen but without specific link to the theme. • Used effectively/imaginatively, mature and sensitive choice, bag may contrast in colour to coordinate with main textile product. <p>Quality of presentation of final idea for bag and textile product</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Simple presentation, quality of drawing and labelling and information about product and how it works is mostly clear. • Candidate has taken care with presentation, quality of drawing and labelling and information about product is clear and may be shown from more than one point of view, and candidate communicates how the products work. • Excellent presentation with very clear and detailed labelling. Both bag and main textile product may be shown from more than one point of view and candidate will communicate how the products work. <p>Use of worldwide transport theme</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Little relevance to theme or it is used inappropriately. e.g. worldwide travel with no link to transport. An existing design may have been copied. • Thoughtful and/or imaginative use of theme which is totally appropriate for products. Little evidence that an existing design has been copied. 	<p>0</p> <p>1</p> <p>2</p> <p>3</p> <p>0</p> <p>1</p> <p>2</p> <p>3</p> <p>0</p> <p>1</p> <p>2</p>	<p>Max 3 marks</p> <p>Max 3 marks</p> <p>Max 2 marks</p> <p>TOTAL Max 17 marks</p>
--	--	---	--	--

1	(c)	(ii)	<p><i>Circle the correct safety symbol to put on the child's textile product.</i></p> <p>Marks awarded as follows: No answer worthy of credit</p> <p>Correct answer:-</p> 	0 1	
---	-----	------	--	--------	--

2	(a)	(i)	<p><i>Explain why silk is suitable for the wedding dress.</i></p> <p>Absorbent, soft, comfortable next to skin, cool, warm, natural sheen/lustrous, lightweight, smooth, strong when dry, drapes well, luxurious appeal/special occasion wear. Do not allow dyes well.</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Simple explanation that gives 1 or 2 reasons. • Detailed answer with an understanding of the properties and characteristics of silk. 	<p>0 1 2</p>	<p>Max 2 marks</p>
2	(a)	(ii)	<p><i>Give two disadvantages of using silk for this wedding dress.</i></p> <p>Expensive, weaker when wet, may not wash well/dry clean only, stains easily/watermarks, may crease easily, standard silk involves cruelty to living creatures. Moth damage. Do not allow manufacturing issues.</p> <p>Marks awarded as follows: No answer worthy of credit</p> <p>1 mark for each correct disadvantage.</p>	<p>0</p>	<p>Max 2 marks</p>
2	(a)	(iii)	<p><i>Name a synthetic fibre which could be used to make a similar fabric for this wedding dress.</i></p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Polyester. Accept micro fibre, polyester satin. <p>Do not accept nylon/just 'satin'/viscose/rayon/polyester cotton It must be a fibre not a fabric</p>	<p>0 1</p>	

2	(b)	<p><i>Draw a line to link each product description to the production system used to manufacture the product.</i></p> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Product description</th> <th style="text-align: left;">Product system</th> </tr> </thead> <tbody> <tr> <td style="border: 1px solid black; padding: 5px;">Summer 2013 dresses for a high street store</td> <td rowspan="4" style="vertical-align: middle;"> <table border="0" style="width: 100%;"> <tr> <td style="border: 1px solid black; padding: 5px;">One-off production</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">Mass production</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">Batch production</td> </tr> </table> </td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">Wedding dress made for a royal wedding</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">Supermarket school uniform gingham summer dress</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">Wedding dress made for a high street wedding dress shop</td> </tr> </tbody> </table> <p>Marks awarded as follows: No answer worthy of credit 1 mark for each correct link, up to 4 marks</p>	Product description	Product system	Summer 2013 dresses for a high street store	<table border="0" style="width: 100%;"> <tr> <td style="border: 1px solid black; padding: 5px;">One-off production</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">Mass production</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">Batch production</td> </tr> </table>	One-off production	Mass production	Batch production	Wedding dress made for a royal wedding	Supermarket school uniform gingham summer dress	Wedding dress made for a high street wedding dress shop	0	Max 4 marks
Product description	Product system													
Summer 2013 dresses for a high street store	<table border="0" style="width: 100%;"> <tr> <td style="border: 1px solid black; padding: 5px;">One-off production</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">Mass production</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">Batch production</td> </tr> </table>	One-off production	Mass production	Batch production										
One-off production														
Mass production														
Batch production														
Wedding dress made for a royal wedding														
Supermarket school uniform gingham summer dress														
Wedding dress made for a high street wedding dress shop														
2	(c) (i)	<p><i>Name the production system shown in the photograph.</i></p> <p>Mass/volume/continuous production.</p>	1											

2	(c)	(ii)	<p><i>Explain why this production system is best for large orders of simple dresses.</i></p> <p>Large numbers of identical products can be manufactured using a production line to make items that are in demand over a long period of time. Each machine operator works on a section of the product before passing it along to make process cost effective and time efficient.</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • One reason given, such as costs less to make a dress or quicker/fast production • More detailed explanation to include more than one point. • Detailed explanation with a clear understanding of mass production. <p>If 2 c (i) is incorrect but valid points are made about the production system in photo, points can be awarded.</p>	<p>0 1 2 3</p>	<p>Max 3 marks</p>
2	(c)	(iii)	<p><i>Give three methods of Quality Assurance.</i></p> <p><i>An example is given below.</i> <i>Train the workforce</i></p> <p>Marks awarded as follows: No answer worthy of credit</p> <p>Use a flow chart to guide method of working, use a gold standard/prototype/reference sample/specification to test production against, check materials are clean and faultless. Check machines are working properly. Clean working environment/organized workspace/good working conditions. Supervision of workforce. Quality control check points e.g. tolerance levels, checking secure stitching. 2 or 3 quality control check points listed – 1 mark only. No to safe environment</p> <p>1 mark for each correct point.</p>	<p>0</p>	<p>Max 3 marks</p>

3	(a)	(i)	<p><i>Explain why a trouser back pocket is not a good place to put work tools.</i></p> <ul style="list-style-type: none"> • Wrong shape • They fall out too easily • Too small • No fastening • Risk of damage to tools • Risk of injury • Disorganised • Limited view of access to tools • Uncomfortable to wear • No sectioned areas for different tools • Pocket not strong enough/may be damaged <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Any 2 points 1 mark each 	0 2	Max 2 marks
3	(a)	(ii)	<p><i>Suggest three suitable textile products the worker, shown on page 13, could use for the work tools instead of the trouser back pocket.</i></p> <ul style="list-style-type: none"> • Apron • Dungarees • Cargo trousers • Tool belt/work belt/pouch • Bag • Workwear waistcoat/jacket • Overall • Tool roll – not tool box <p>Marks awarded as follows: No answer worthy of credit 1 mark for each suitable textile product. If 2 different types of bag are described in detail, 1 mark for each different type of bag. If 3 different types of bag = 2 marks No to moving the pocket.</p>	0	Max 3 marks
3	(b)	(i)	<p><i>Name the type of fabric construction in the diagram above.</i></p> <p>Woven twill/ twill weave.</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • 1 mark for woven/weave/weaving or 1 mark for Twill. • Woven twill/twill weave. 	0 1 2	Max 2 marks

3	(b)	(ii)	<p>Name a suitable work wear fabric made from this construction method.</p> <p>Denim/canvas/gabardine/drill/twill</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> No answer worthy of credit 1 mark for any correct fabric name. 	0 1	
3	(b)	(iii)	<p>Give two reasons why this fabric is fit for purpose.</p> <ul style="list-style-type: none"> Hardwearing Washable Comfortable/flexible Strong Durable <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> No answer worthy of credit 1 mark for each correct reason, up to 2 marks. <p>If 3 b (ii) is a fibre but correct and relevant fibre properties given then award marks.</p>	0	Max 2 marks
3	(c)		<p>Explain why some school trouser labels include the following symbol.</p> <p>This symbol tells the consumer that a Teflon treatment or finish has been applied to the fabric that instantly repels oil and water based stains causing liquids to bead or roll off of the surface of the fabric. Ground in dirt is released during laundering/ easy care /wash. The candidate may know that molecules that make up Teflon® are hydrophilic or water loving and they attract water and detergent into the fabric, releasing the stains and leaving the fabric clean. Nanotechnology may be referred to.</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> No answer worthy of credit 'stain resistant' Candidate will explain simply what is meant by stain resistance. Detailed explanation with a higher level of understanding and may refer to nanotechnology. <p>Not about strength of fabric. No to durability or quality unless linked to stain resistance.</p>	0 1 2 3	Max 3 marks

3	(d)	<p><i>Describe two fabrics which can be used to make clothes safe for someone working in low light conditions.</i></p> <p>Accept 'high visibility fabric' give additional 1 mark for expansion to explain why it is highly visible. Candidates may give trade names for particular fabrics – Reflective material, fluorescent fabric, accept 'neon', glow in the dark fabric.</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none">• No answer worthy of credit• 1 mark for each correct name or description of fabric up to 2 marks. <p>No to strong, warm or LED lights.</p>	0	Max 2 marks
----------	------------	---	---	--------------------

4	(a)	(i)	<p>List three types of computer research useful to designers.</p> <p>An example is given below. Trend forecasts</p> <p>Use of search engines to find websites, images and video clips/fashion show online. Research on websites. Communication with client base or target market to seek opinions e.g. questionnaires, surveys. Finding out about existing products/fashion colours/fabrics/materials/price, popular culture, other designers work. Researching sales data, watching video clips, reading blogs. Information purchased online such as databases and resource libraries. Making a moodboard/themeboard/colour forecast</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Any 3 points 1 mark each or 2 points with expansion. 	0	Max 3 marks
4	(a)	(ii)	<p>Explain how computer technology and communication are used to present research findings.</p> <p>This question is about presenting research. Power point presentation, video, excel data spread sheets/charts/tables, 'publisher' documents, images/text made into presentation sheet/portfolio/moodboard/themeboard.</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Any 4 points 1 mark each or 3 points with expansion such as emailing or video conferences/webinars/saving and editing. 	0	Max 4 marks

4	(b)	(i)	<p><i>Discuss the advantages of using computers to link the stages in the diagram above.</i></p> <p>This question is about communication.</p> <p>Speed, and time and costs efficiency increased for design development and modification, design approval, stock ordering and control, speeds up communication, information can be sent as word, image, sound, video, reduces need for travel. Conferences held between different parts of process. Confidence to make decisions based on data and images rather than actual seen fabric or garment samples. Buyers have a close relationship with suppliers, manufacturers and retailers. New designs based on modifications to previous best sellers. Shared library of resources. Rapid sample making where CAD linked to CAM. Instructions sent to machines in a different location, tracking. Garments sold on line.</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Basic understanding one or two points made. Quicker, cheaper, more efficient – if no explanation is given, 1 mark only. • Good understanding with some examples given for some aspects of cycle of communication. • Excellent understanding with a wide variety of examples given through the whole cycle of communication. 	<p>0 1 2 – 3 4 – 5</p>	<p>Max 5 marks</p>
4	(b)	(ii)	<p><i>Explain how a retailer will use this data.</i></p> <p>Repeat orders in red. Designer will include more emphasis on red materials and red colour ways when modifying designs for further orders for current year. The product range might be expanded to include additional different red garments or accessories. May include reference to retail display to promote red products.</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Simple explanation – order/‘make more red garments’. • More detailed explanation 	<p>0 1 2</p>	<p>Max 2 marks</p>

5	(a)	(i)	<p><i>Describe some dyeing, printing and surface techniques that could be used to make a decorative cushion cover. Include a range of fabrics and decorative components.</i></p> <p><i>Quality of written communication (QWC) will be assessed in this question.</i></p> <p>The following techniques may be mentioned:-</p> <ul style="list-style-type: none"> • Any dyeing, and painting techniques e.g. batik, tie dye • Any printing or stencilling technique e.g. block printing, sublimation printing • Any decorative stitch work eg appliqué, hand embroidery, machine stitching, quilting, • Fabric manipulation e.g. patchwork, smocking, pleating, gathering, frills, heat setting • Any named or described fabrics and fabric combinations • Adding trims/sequins/buttons/beads/decorative components/motifs/LED bulbs etc. <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit. • Simple statements or those that only include one or two basic techniques for adding features, colour, pattern and texture. Candidate will tend to concentrate superficially on only a few ideas and offers little information, little variety in or detail about techniques suggested. There may be some confusion. Candidate may refer only to colour. Response is structured poorly with little or no use of Design and Technology terminology and with numerous errors in grammar, punctuation and spelling • More detailed information. May only include a few techniques for adding features, colour, pattern and texture but some variety is described. This candidate has some understanding of how colouring and texture is created and may refer to fabrics and components. Response is fairly well structured with some use of Design and Technology terminology and with a small number of errors in grammar, punctuation and spelling • Sound understanding of a variety of techniques with detailed information about adding features, colour, pattern and texture to the cushion cover. Fabric and components are described or named. Response is well structured with good use of appropriate Design and Technology terminology and shows a good grasp of grammar, punctuation and spelling. 	<p>0</p> <p>1 – 2</p> <p>3 – 4</p> <p>5 – 6</p>	
---	-----	-----	---	---	--

			<ul style="list-style-type: none"> Excellent understanding of a wide variety of techniques with accurate and detailed information. Candidate will refer to fabric and component choice linked to technique. Response is well structured with good use of appropriate Design and Technology terminology and shows a good grasp of grammar, punctuation and spelling. If bullet points are used to structure answer, then full, detailed sentences must be employed. 	7 – 8	Max 8 marks
5	(a)	(ii)	<p><i>Use notes and diagrams to explain one method of dyeing or printing, or a surface decorative technique. May refer to classroom or industrial techniques.</i></p> <p>6 marks will be given for:</p> <p>Name of technique</p> <ul style="list-style-type: none"> No answer worthy of credit; notes and diagrams show a different technique Correct name for technique shown in notes and diagrams <p>Step-by-step instructions including equipment needed</p> <ul style="list-style-type: none"> No answer worthy of credit Explanation is confused. This candidate displays little knowledge and is unable to explain method and equipment shown is inappropriate or not mentioned at all. Explanation of method is adequate and would mostly work. This candidate has a good grasp of the technique and refers to equipment needed. Accurate explanation of method including use of correct materials and detailed equipment – labeled or listed. Candidate understands technique and can clearly explain it. <p>Quality of notes and sketches</p> <ul style="list-style-type: none"> No answer worthy of credit Basic detail, simple or no diagrams, few steps. Detailed diagrams with clear labels, neat presentation 	<p>0</p> <p>1</p> <p>0</p> <p>1</p> <p>2</p> <p>3</p> <p>0</p> <p>1</p> <p>2</p>	Max 6 marks

5	(a)	(iii)	<p>Give three different components that could be used instead of buttons.</p> <p>Any suitable fastenings. e.g. zip, press studs/poppers, toggles, eyelets/lacing, Velcro, hooks and bars/eyes. Ribbon, lace to tie. No to just 'lace'.</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • 1 mark for each fastening component up to 3 marks. 	0	Max 3 marks
5	(b)	(i)	<p>List three principles of Fairtrade.</p> <p>No child labour, fair wage, good working conditions/environment/regular breaks, support for families/community, promotion of country and its people, sustainable sourcing of materials, environmentally friendly, fair price paid to producer, design and manufacturing, ethical products and production methods.</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • 1 mark for each correct point, up to 3 marks. <p>Do not accept against gender discrimination</p>	0	Max 3 marks

5	(b)	(ii)	<p><i>Name and describe three different sustainable fabrics.</i></p> <p>May describe fabrics or fibres. May describe reason for sustainability or properties and characteristics of fabric or fibres.</p> <ul style="list-style-type: none"> • Organic cotton fabric – grown without use of herbicides or pesticides, organic linen/organic wool • Fairtrade fabric – produced without exploitation of labour • Bamboo/soy/hemp/bio fabric– fibres that can be harvested with reduced impact on the environment • Tencel/regenerated fibre/lyocell from renewable source Recycled polyester/PET - made from existing polyester so reduced use of coal/oil, or recycled plastic bottles. No to polyester unless linked to recycling • Peace silk, ahimsa silk – produced without harm to silk worms. No to just 'silk'. • Faux fur/leather – made from synthetic materials • Recycled/reclaimed/reused fabric – existing fabrics reused rather than manufacturing more from raw materials • Natural dyed fabric/natural pigmented fabric/unbleached fabric – use of toxic chemicals reduced/avoided • Biodegradable fabric – will break down in time naturally. <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit – if just wool, cotton, linen etc. no marks • 1 mark for each sustainable fabric/fibre named • 1 mark for wool/cotton/linen with natural fibre/can regrow or properties and characteristics given • 1 mark for each answer, if name or description is correct but fabric named does not match description • 2 marks for each sustainable fabric/fibre if it is named and described or expansion to provide further detail about the listed fabric/ fibre sustainability or properties and characteristics. Up to 6 marks. 	0	<p>Max 6 marks</p>
---	-----	------	--	---	---------------------------

6	(a)	<p><i>Identify and explain three different ideas to improve the harness.</i> <i>An example is given:</i> <i>Add padding to back strap – To make the harness more comfortable for the dog to wear.</i></p> <p>Do not award marks for other examples of where to add padding /wadding/lining to straps.</p> <ul style="list-style-type: none"> • Add LED lights – to make it light up for safety • Use reflective fabric/tape – to reflect car lights • Use fluorescent fabric – to make it very visible • Use bright colours – to make it visible • Add label - to identify as guide dog • use elastic/elastane fabric - to allow for freedom of movement • Include broader straps/add additional - for added support/comfort • Include fastenings that are comfortable, visible, safe and quick release • Move leash ring to back strap – to allow owner to be guided by dog • Adjustable straps for a better fit/more comfortable <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • For each correct point 1 mark, up to 3 marks • For each correct explanation 1 mark, up to 3 marks 	0	<p>Max 6 marks</p>
6	(b)	<p><i>List two different ways to test the prototype and give a reason for each test.</i></p> <p><i>An example is given below.</i> <i>Test: compare it to a similar existing product</i> <i>Reason: to compare use of materials</i></p> <p>Tests: Testing or checking against the design criteria or product/manufacturing specification, trialling or testing the product to gain consumer feedback/public opinion/questionnaire. Test the strength/suitability/wash test of harness materials and construction using testing equipment. Trying the harness on a dog/dummy/model with owner trying out harness. Check visibility.</p> <p>Reasons: To test fitness for purpose/size/safety/appeal/quality/if it works/find out if materials used are suitable/would it sell.</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Any 2 tests, 1 mark each • Any appropriate reason for each test, 1 mark each 	0	<p>Max 4 marks</p>

6	(c)	<p><i>Name two components that could be included in the harness design to make the harness adjustable in size.</i></p> <p>Buckle/belt with belt holes, 2 rings/double ring/elastic strap, Velcro, tri-glide/slide adjuster/ladderloc adjuster/bar adjuster, press studs. No to buttons, lacing</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • 1 mark for any correct component, up to 2 marks. 	0	Max 2 marks
6	(d)	<p><i>Give one method of making and applying the label to the harness.</i></p> <p>Printed label Embroidered badge/label/motif/logo Rubber badge LED lights Swing tag/packaging label</p> <p>Marks awarded as follows:</p> <ul style="list-style-type: none"> • No answer worthy of credit • Name of method only or basic description of method. • Method is named and clearly described to explain how label is made and applied to harness. 	0 1 2	Max 2 marks