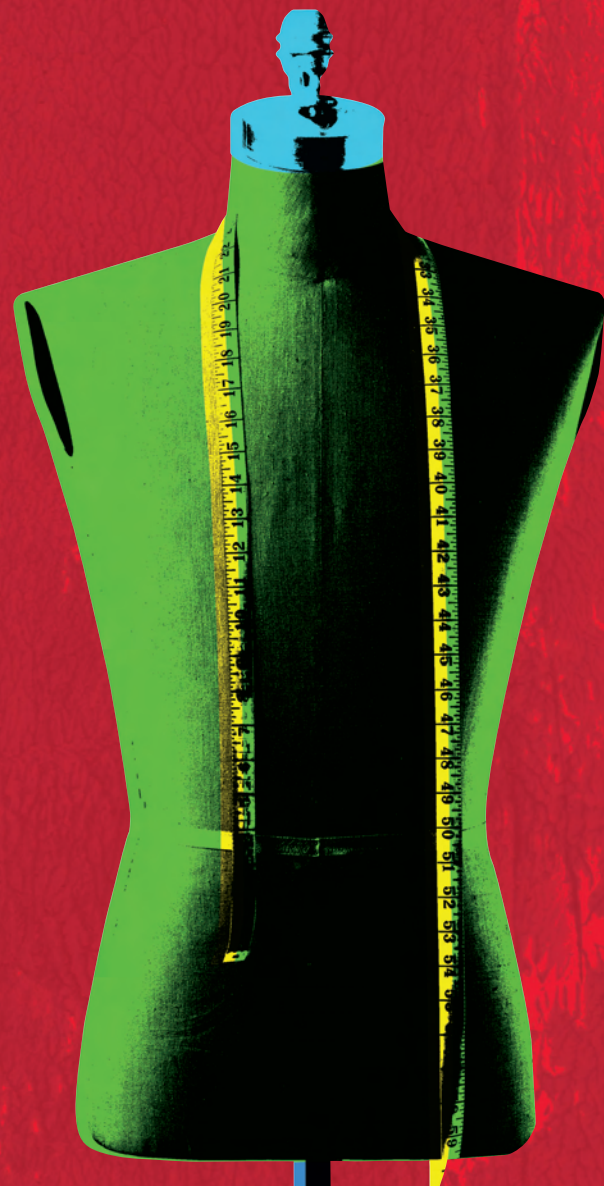


## Sample Assessment Materials

# Edexcel GCSE in Design and Technology: Textiles Technology (2TT01)

### Inside this Sample Assessment Materials pack you'll find:

- An accessible paper to help you and your students prepare for the assessment
- A clear and concise mark scheme to let you know what the examiners are looking for
- Supported controlled assessment information including sample tasks and assessment criteria to share with students.



# Welcome to the GCSE 2009 Design and Technology: Textiles Technology Sample Assessment Materials

These sample assessment materials have been written to accompany the specification. They have been developed to give you and your students a flavour of the actual exam paper and mark scheme so they can experience what they will encounter in their assessments. They feature:

- **An accessible paper** using a mixture of question styles. We've worked hard to ensure the paper is easy to follow with an encouraging tone so that the full range of students can show what they know.
- **A clear and concise mark scheme** outlining what examiners will be looking for in the assessments, so you can use the sample paper with students to help them prepare for the real thing.
- **Supported controlled assessment**, including sample controlled assessment tasks to show you the sort of activity students will undertake. Used in conjunction with the guidance in the Teacher's Guide, these tasks will help you manage the controlled assessment in your centre and help students achieve their best.

Our GCSE 2009 Design and Technology: Textiles Technology qualification will be supported better than ever before. Keep up to date with the latest news and services available by visiting our website: [www.edexcel.com/gcse2009](http://www.edexcel.com/gcse2009)

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# General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, ie if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.
- Mark schemes will indicate within the table where, and which strands of QWC, are being assessed. The strands are as follows:
  - i) ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear*
  - ii) select and use a form and style of writing appropriate to purpose and to complex subject matter*
  - iii) organise information clearly and coherently, using specialist vocabulary when appropriate.*

# Edexcel GCSE

## Design and Technology: Textiles Technology

### Unit 1: Creative Design and Make Activities

Sample Controlled Assessment Material

Paper Reference

**5TT01/01**

**You do not need any other materials.**

*Turn over* ►

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## Delivery of the controlled assessment

You will design and make a **textiles product**.

In order to complete this task you will undertake the following **design** activity:

Stages	Tasks	Suggested times
1. Investigate	1.1 Analysing the brief	1 hour
	1.2 Research	3 hours
	1.3 Specification	1 hour
2. Design	2.1 Initial Ideas	5–6 hours
	2.2 Review	1 hour
	2.3 Communication	Evidenced throughout
3. Develop	3.1 Development	5–6 hours
	3.2 Final design	1–2 hours

In order to complete this task you will undertake the following **make** activity:

Stages	Tasks	Suggested times
4. Plan	4.1 Production plan	1–2 hours
5. Make	5.1 Quality of manufacture	16 hours
	5.2 Quality of outcome	
	5.3 Health and Safety	Evidenced throughout
6. Test and evaluate	6.1 Testing and evaluation	1–2 hours

**Controlled conditions**

Development of the student's design folder and manufacture of the product(s) must take place under controlled conditions. Students will be supervised by a teacher at all times.

Students' work must be collected in at the end of the lesson and handed back at the beginning of the next lesson. Students must produce their work individually.

**Feedback control**

Teachers are allowed to provide regular, formative feedback throughout the creative design process. Student progression should be supported by the centre's own Assessment for Learning (AFL) strategies.

Demonstrations of practical activities are allowed in order to develop knowledge, understanding and skills and to identify health and safety issues relating to specific tools, equipment and processes.

**Collaboration control**

Where group work is carried out, evidence of individual contributions must be clearly identified and recorded.

**Resources**

Access to resources is determined by those available to the centre.

**Quality of written communication**

Quality of written communication (QWC) will be assessed throughout the student's design folder. This will assess students on their ability to organise information clearly and coherently, using specialist vocabulary when appropriate.

## Tasks

Suggested textiles products are:

1. **Accessories**, eg
  - A range of products that can be used to carry items.
  - Range of items to restyle an outfit.
2. **Garments**, eg
  - An item for a special occasion eg prom.
  - An item to wear for a sporting event.
3. **Soft Toys**, eg
  - A toy for young children to help them improve their manipulative skills.
  - A toy for a child with visual impairment.
4. **Soft furnishing**, eg
  - A range of items for a babies nursery.
  - A range of items for a students study.
5. **Embellished Textiles**, eg
  - A contemporary wall hanging.
  - Embellished fabric used to produce a garment or accessory.

Centres can contextualise the task(s) to best suit their specific circumstances, which includes the availability of and access to resources.

## Task taking

All work, with the exception of research, must be done under informal supervision. Research may be completed under limited supervision.

### Initial research

Students can undertake research to locate sources outside of the classroom without supervision. They can locate as many sources to take into the write up phase as they wish.

### Design and make tasks

The student must complete the following under classroom supervision:

- write up of their portfolio
- making of their product

However, Students are allowed to use the following to help them with completing their task:

- their initial research they have undertaken outside of the classroom to produce focused selective research for their portfolio
- sources the centre provides.

A student can bring in additional research notes at any time provided the write up of their research is done under the same supervised conditions.

## Task marking

Marking of the tasks will be carried out by teachers and moderated by Edexcel.



## Assessment criteria

For these tasks teachers must mark students' work using the assessment criteria specified below. Teachers should check that students' work is their own and is not copied from source material without any attempt by students to put the material into their own words.

### Design activity (50 marks)

<b>Investigate (15 marks)</b>		
<b>Sub-sections</b>	<b>Descriptor</b>	<b>Mark range</b>
a) Analysing the brief	Level of response not worthy of credit.	0
	Analysis is superficial leading to unclear design needs.	1
	Analysis is limited with some design needs clarified.	2
	Analysis is detailed with most design needs clarified.	3
b) Research	Level of response not worthy of credit.	0
	Research is superficial and does not focus on the design needs identified in the analysis. Analysis of existing products is insufficient to aid the writing of specification criteria.	1-2
	Research is general, focusing on some of the design needs identified in the analysis. Product analysis is used to inform the writing of some specification criteria.	3-4
c) Specification	Level of response not worthy of credit.	0
	Specification points are superficial and not justified.	1-2
	Some specification points are realistic and measurable. Some specification points are developed from research but are not justified.	3-4
	Most specification points are realistic, technical, measurable and address some issues of sustainability. Specification fully justifies points developed from research.	5-6

<b>Design (20 marks)</b>		
<b>Sub-sections</b>	<b>Descriptor</b>	<b>Mark range</b>
d) Initial ideas	Level of response not worthy of credit.	0
	Alternative design ideas are similar and simplistic. Ideas are superficial and limited research is used. Limited specification points are addressed.	1-4
	Alternative design ideas are realistic and workable. Ideas are detailed and relevant research is used. Ideas address most specification points.	5-8
	Alternative design ideas are realistic, workable and detailed. Ideas demonstrate detailed understanding of materials, processes and techniques and are supported by research information. Ideas address all key specification points.	9-12
e) Review	Level of response not worthy of credit.	0
	General and subjective comments against some specification points. Limited use of user group feedback.	1-2
	Objective evaluative comments, against most specification points, that consider user group feedback and issues of sustainability.	3-4
f) Communication	Level of response not worthy of credit.	0
	Use of a range of communication techniques, including ICT where appropriate, with sufficient skill to convey an understanding of design ideas.	1-2
	Use of a range of communication techniques and media, including ICT and CAD where appropriate, with precision and accuracy.	3-4

<b>Develop (15 marks)</b>		
<b>Sub-sections</b>	<b>Descriptor</b>	<b>Mark range</b>
g) Development	Level of response not worthy of credit.	0
	Developments from alternative design ideas are minor and cosmetic. Simple modelling is used to test an aspect of the final design proposal against a design criterion.	1-3
	Developments are appropriate and use details from alternative design ideas to change, refine and improve the final design proposal. Modelling using traditional materials and/or 3D computer modelling is used to test some aspects of the final design proposal against relevant design criteria.	4-6
	Development is used to produce a final design proposal that is significantly different and improved compared to any previous alternative design ideas. Modelling to scale using traditional materials or 2D and/or 3D computer simulations is used to test important aspects of the final design proposal against relevant design criteria. User group feedback is used in final modifications.	7-9
h) Final design	Level of response not worthy of credit.	0
	Final design proposal includes limited consideration of materials and/or component parts, processes and techniques.	1-2
	Final design proposal includes details of some materials and/or component parts, processes and techniques.	3-4
	Final design proposal includes technical details of all materials and/or component parts, processes and techniques.	5-6

### Make activity (50 marks)

<b>Plan (6 marks)</b>		
<b>Sub-sections</b>	<b>Descriptor</b>	<b>Mark range</b>
a) Production plan	Level of response not worthy of credit.	0
	Superficial production plan that outlines some stages of manufacture with limited reference to quality control.	1-2
	Limited production plan that considers the main stages of manufacture with some reference to appropriate forms of quality control.	3-4
	Detailed production plan that considers all stages of manufacture in the correct sequence including specific forms of quality control.	5-6

<b>Make (38 marks)</b>		
<b>Sub-sections</b>	<b>Descriptor</b>	<b>Mark range</b>
b) Quality of manufacture	Level of response not worthy of credit.	0
	Tools, equipment and processes, including CAD/CAM where appropriate, are selected with guidance. Limited understanding of the working properties of materials when selecting to manufacture a product. The task is undemanding. A limited range of skills and processes is used that show little attention to detail in their use.	1-8
	Tools, equipment and processes, including CAD/CAM where appropriate, are selected with some guidance. Some understanding of the working properties of materials when selecting to manufacture a product. The task offers some challenge. A range of skills and processes is used demonstrating attention to detail in their use.	9-16
	Tools, equipment and processes, including CAD/CAM where appropriate, are selected for specific uses independently. An appropriate understanding of the working properties of materials when selecting to manufacture a product. The task is challenging. A wide range of skills and processes is used with precision and accuracy.	17-24
c) Quality of outcome	Level of response not worthy of credit.	0
	Product includes the manufacture of some good quality component parts that remain either unassembled or poorly assembled and finished. Completed product functions poorly.	1-4
	Product includes the manufacture of good quality component parts that are generally well assembled and finished. Completed product functions adequately.	5-8
	Product includes the manufacture of high-quality component parts, accurately assembled and well finished. Completed product is fully functional.	9-12
d) Health and safety	Level of response not worthy of credit.	0
	Demonstrate an awareness of safe working practices for most specific skills and processes.	1
	Demonstrate a high level of safety awareness throughout all aspects of manufacture.	2

<b>Test and evaluate (6 marks)</b>		
<b>Sub-sections</b>	<b>Descriptor</b>	<b>Mark range</b>
e) Testing and evaluation*	Level of response not worthy of credit.	0
	One or more simple tests carried out to check the performance and/or quality of the final product. Evaluative comments are subjective and reference a few specification points superficially.  Use of basic language and the response lacks clarity and organisation. Spelling, punctuation and the rules of grammar used with limited accuracy.	1-2
	A range of tests carried out to check the performance and/or quality of the final product. Evaluative comments are objective and reference most specification points. Use of some design and technology terms and some focus and organisation. Spelling, punctuation and the rules of grammar used with some accuracy. Some spelling errors may still be found.	3-4
	A range of tests carried out to check the performance and/or quality of the final product with justifications. Objective evaluative comments, including user group evaluation, consider the most relevant, measurable specification points in detail, including sustainability issues. Use of a range of appropriate design and technology terms and good focus and organisation. Spelling, punctuation and the rules of grammar used with considerable accuracy.	5-6

\* Opportunity for students to be assessed on quality of written communication: strand (iii) — organise information clearly and coherently, using specialist vocabulary when appropriate.



Write your name here

Surname

Other names

Centre Number

Candidate Number

**Edexcel GCSE**

**Design and Technology: Textiles Technology**  
**Unit 2: Knowledge and Understanding of**  
**Textiles Technology**

Sample Assessment Material

**Time: 1 hour 30 minutes**

Paper Reference

**5TT02/01**

**You do not need any other materials.**

Total Marks

### Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** the questions.
- Answer the questions in the spaces provided  
– *there may be more space than you need.*

### Information

- The total mark for this paper is 80.
- The marks for **each** question are shown in brackets  
– *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk** (\*) are ones where the quality of your written communication will be assessed.  
– *you should take particular care with your spelling, punctuation and grammar, as well as the clarity of expression, on these questions.*

### Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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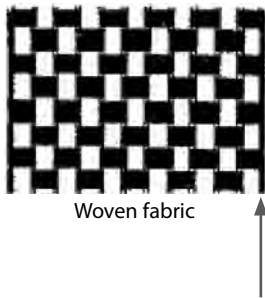


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**Answer ALL the questions.**

**For each question 1 to 10, choose an answer A, B, C or D. Put a cross in the box indicating the answer you have chosen . If you change your mind, put a cross through the box  and then indicate your new answer with a cross .**

**1** The diagram below shows a fabric.



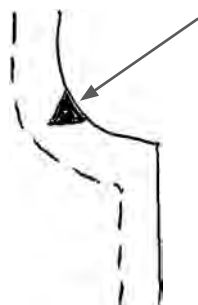
The arrow is pointing to the:

- A** warp
- B** weft
- C** selvedge
- D** bias

**(Total for Question 1 = 1 mark)**



2 The diagram below shows a pattern marking.



The arrow is pointing to:

- A the sewing line
- B the cutting line
- C a dart
- D a notch

(Total for Question 2 = 1 mark)

3 Which of the following is an example of a natural fibre?

- A Wool
- B Acrylic
- C Viscose
- D Polyester

(Total for Question 3 = 1 mark)

4 Batch production is for making:

- A large quantities of a garment
- B fixed quantities of a garment
- C small quantities of a garment
- D an individual garment

(Total for Question 4 = 1 mark)

5 When a nap fabric is cut, the pattern pieces should all:

- A lie in the same direction
- B be pinned every 2 centimetres
- C lie along the weft of the fabric grain
- D lie along the warp of the fabric grain

**(Total for Question 5 = 1 mark)**

---

6 Which of the following is an example of a physical finishing process?

- A Flame resist finish
- B Mercerising
- C Calendering
- D Biostoning

**(Total for Question 6 = 1 mark)**

---

7 Batik is used as a surface decoration on fabric.

Which type of printing process does Batik use?

- A Screen printing
- B Digital printing
- C Painting
- D Resist dyeing

**(Total for Question 7 = 1 mark)**

---

8 CIM stands for:

- A computer information matrix
- B computer integrated management
- C computer integrated manufacture
- D combined industrial management

**(Total for Question 8 = 1 mark)**

---

**9** Polartec fleece fabric is made from:

- A** recycled fleeces
- B** recycled old clothes
- C** recycled plastic bags
- D** recycled plastic bottles

**(Total for Question 9 = 1 mark)**

---

**10** Micro-encapsulation allows which of the following to be incorporated into fabrics?

- A** Smells
- B** Electronic components
- C** Cleaning products
- D** Decorative features

**(Total for Question 10 = 1 mark)**

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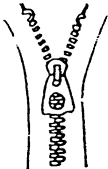
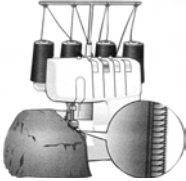
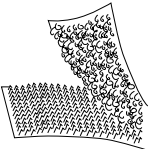
**(Total = 10 marks)**

---

11 (a) The table below shows some components and equipment.

Complete the table below by giving the missing names and uses.

(4)

Components/Equipment	Name	Use
	Tailor's chalk	
	Zip	
		Stitching and trimming seams in one operation
		Fastening garments or shoes

(b) Yarns made from two or more fibres are called blended fibres.

Give **two** reasons why some fabrics are made from blended fibres.

(2)

1 .....

2 .....

(c) Nanoparticles are a form of nanotechnology that is being developed in the textiles industry as a superior modern coating.

Describe **one** advantage of using nanoparticles to coat a fabric rather than traditional substances.

(2)

.....

.....

.....

.....

(d) Fabrics can be made by weaving fibres together in a variety of different ways.

Name **three** different weaves.

(3)

1.....

2.....

3.....

(e) Vilene is used in the construction of shirts.

Give **two** reasons why Vilene is used in the construction of shirts.

(2)

1.....

2.....

(f) CAD software is used by textile designers in the development stage of garment production.

Explain **one** benefit for the **designer** of using 2D modelling software to create and modify designs.

(2)

.....

.....

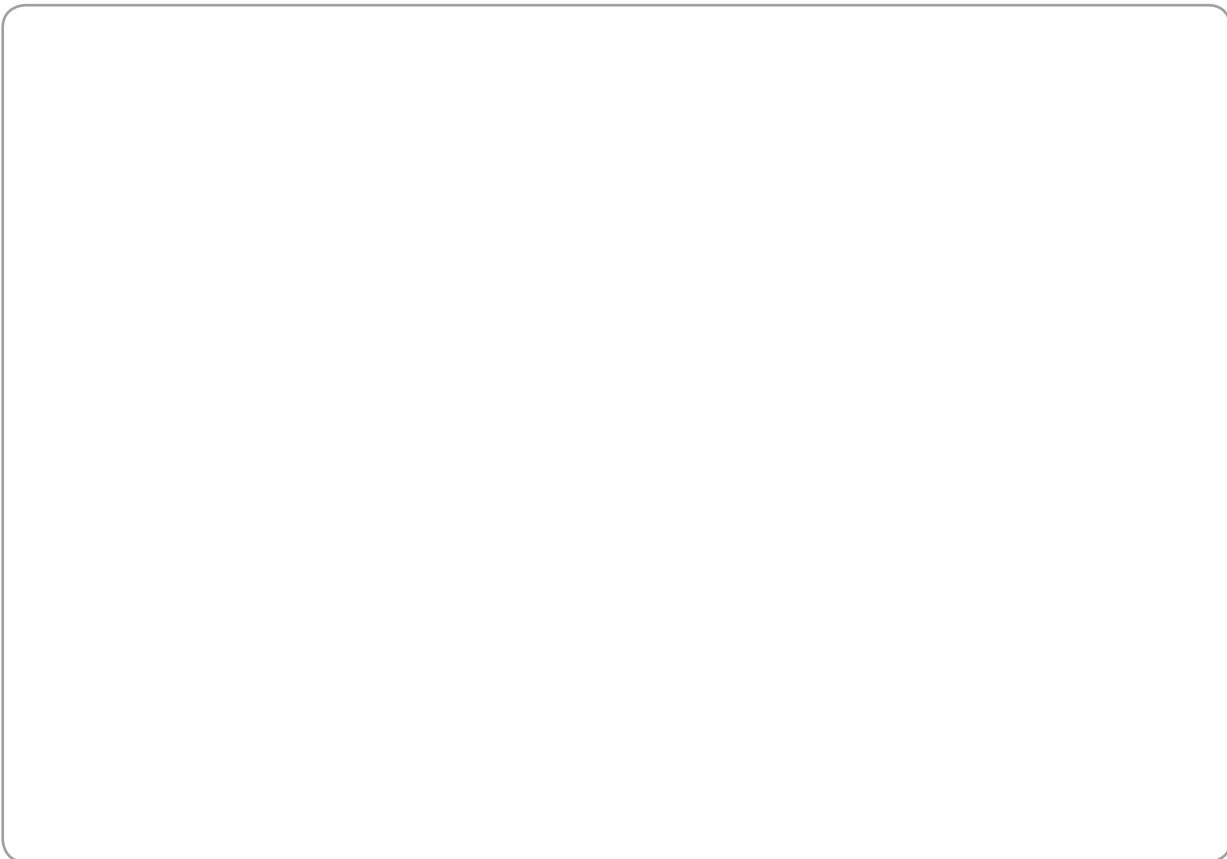
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(g) Durability is a property of some fabrics.

Show, using notes and/or sketches, how a durability test could be carried out in school.

(4)



**(Total for Question 11 = 19 marks)**

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**12** You have been asked to make an outfit to encourage imaginative play for a five-year-old child.

The specification for the outfit is that it must:

- be cheap to make
- be fun to wear
- encourage imaginative play through an effective disguise
- be safe to wear
- use decorative techniques
- be easy to put on and take off
- consist of two separate garments
- be suitable for one-off production in the classroom

In the boxes opposite, use sketches and, where appropriate, brief notes to show **two different** design ideas for the outfit that meet the specification points above.

Candidates are reminded that if a pencil is used for diagrams/sketches it must be dark (HB or B).

Coloured pens, pencils and highlighter pens must **not** be used.

Write your answers in the boxes provided opposite.



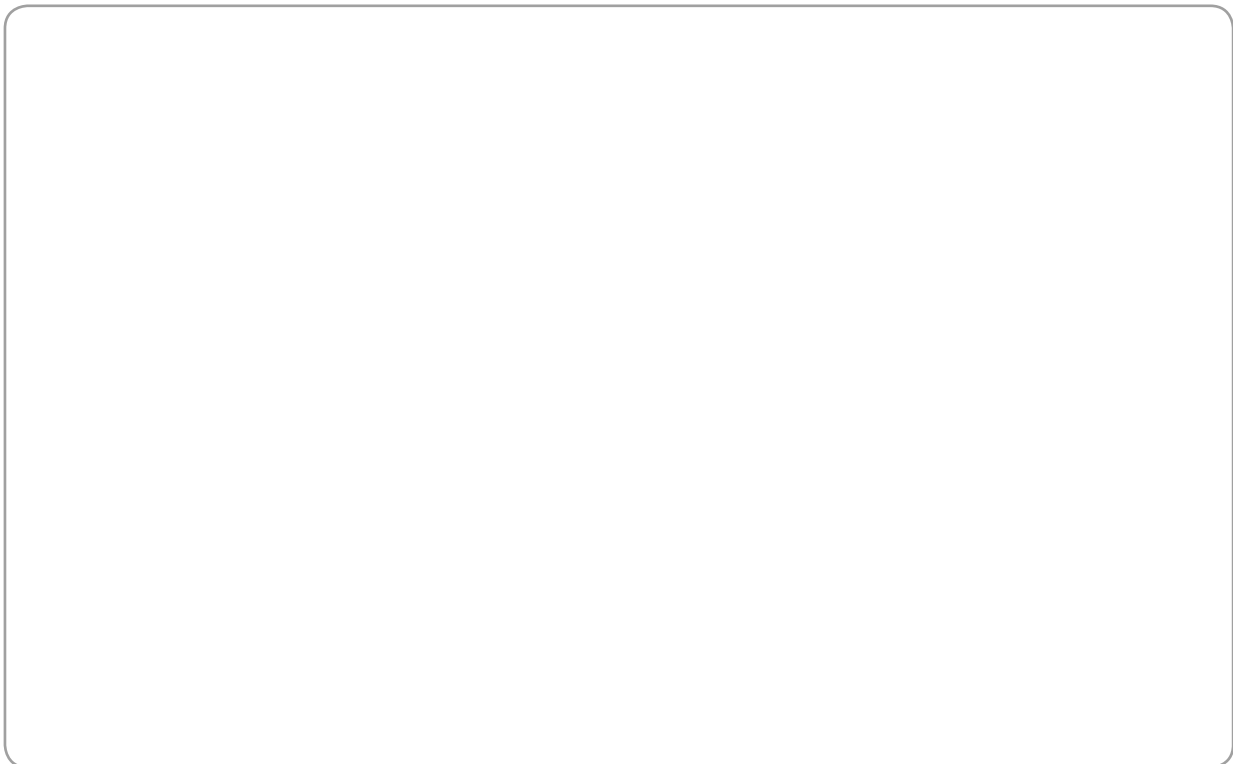
**Design idea 1**

**(8)**



**Design idea 2**

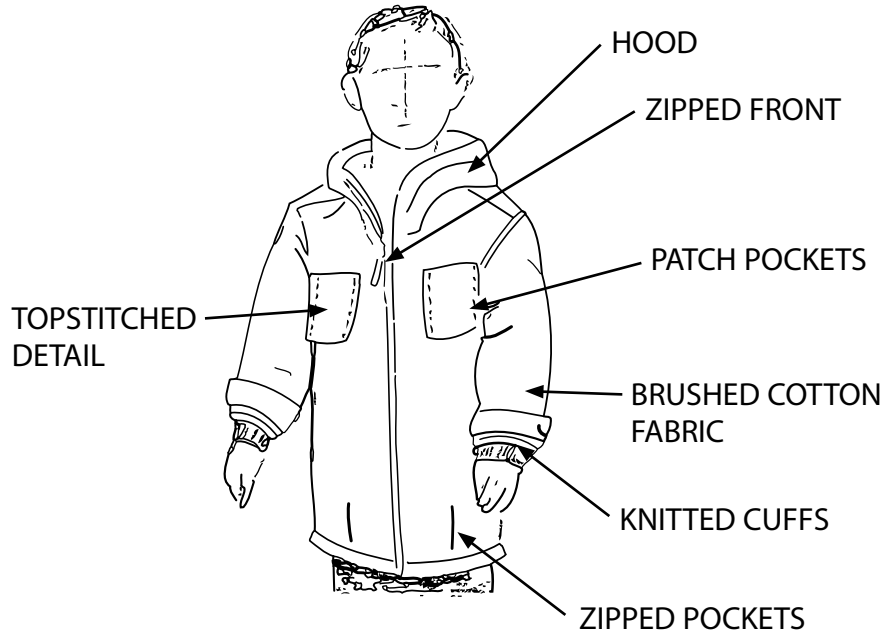
**(8)**



---

**(Total for Question 12 = 16 marks)**

13 The drawing below shows a picture of a child's coat.



(a) The coat is made from brushed cotton.

Give **two** properties of brushed cotton that make it a suitable material for the coat.

For each property, justify your answer.

(4)

Property 1 .....

Justification .....

Property 2 .....

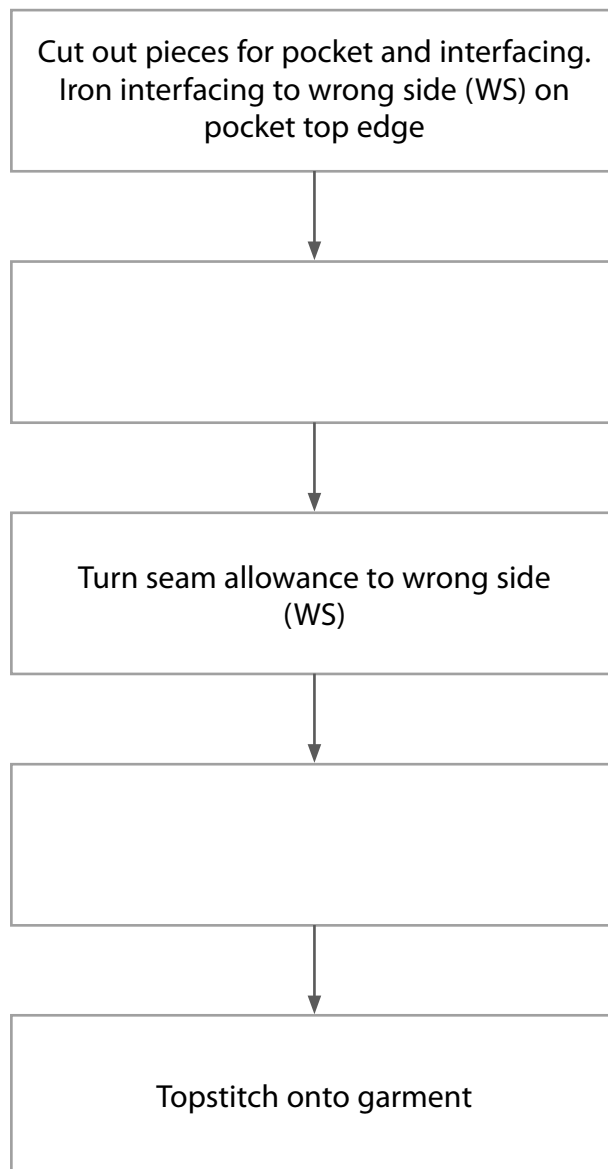
Justification .....

(b) The child's coat has patch pockets on the chest.

Complete the following diagram to show the main stages for making a patch pocket.

Some of the stages have been done for you.

(2)



(c) Explain why the coat is successful in meeting the following specification points:

- (i) Protects the wearer from the cold. **Do not** refer to the properties of the fabric in your answer.

(2)

.....

.....

.....

.....

- (ii) Has fabric that is suitable for frequent washing.

(2)

.....

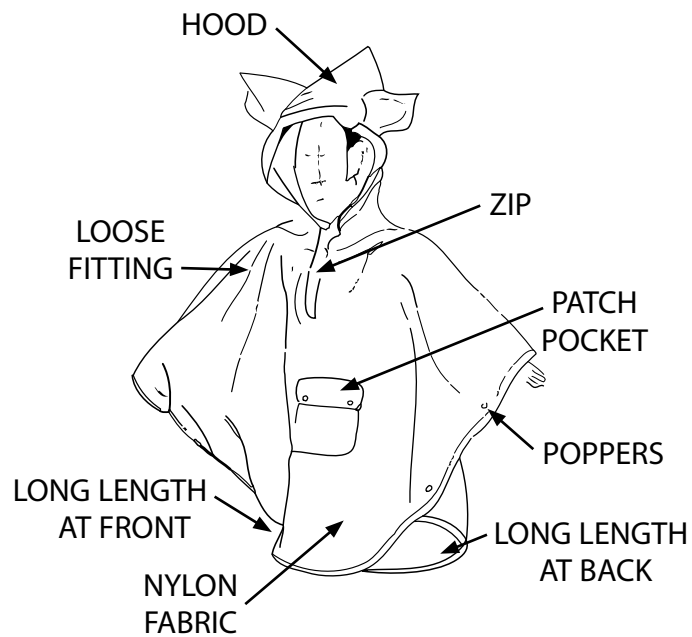
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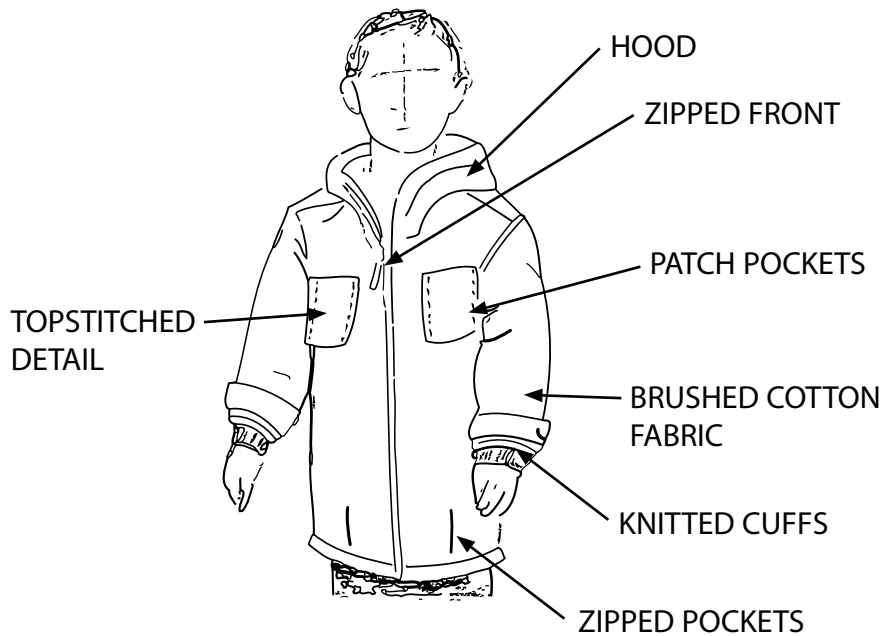
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\*(d) Garments A and B below show two different types of child's outdoor garment.



**Garment A**



**Garment B**



**14** ICT is used in the design, development and marketing of textile products.

(a) Give **two** ways in which the use of e-mail has improved communications between manufacturers and clients.

(2)

1.....  
.....

2.....  
.....

(b) Retailers use electronic point of sale (EPOS) systems in shops when selling textile items to consumers.

Explain **two** benefits to **retailers** of using an EPOS system.

(4)

1.....  
.....

2.....  
.....

.....  
.....



(c) Body scanning is a new technology used in the textile industry.

(i) Explain **one** advantage to the consumer of using a body scanner before creating clothes to fit.

(2)

.....

.....

.....

(ii) Explain **one** disadvantage to the consumer of using a body scanner before creating clothes to fit.

(2)

.....

.....

.....

(d) Some clothes bought on the high street have been made in less developed countries.

Give **three** ethical reasons why consumers may be discouraged from buying these clothes.

(3)

1.....

.....

.....

2.....

.....

.....

3.....

.....

.....



## Sample Mark Scheme

Question Number	Answer	Mark
1	B	(1)

Question Number	Answer	Mark
2	D	(1)

Question Number	Answer	Mark
3	A	(1)

Question Number	Answer	Mark
4	B	(1)

Question Number	Answer	Mark
5	A	(1)

Question Number	Answer	Mark
6	C	(1)

Question Number	Answer	Mark
7	D	(1)

Question Number	Answer	Mark
8	C	(1)

Question Number	Answer	Mark
9	D	(1)

Question Number	Answer	Mark
10	A	(1)

Question Number	Answer	Mark
11(a)	Tailor's chalk	Marking fabric/show where fabric is joined/show pattern markings (1)
	Zip	Fastening the front of a jacket (1)
	Overlocker (1)	Stitching and trimming seams in one operation
	Velcro (1)	Fastening garments or shoes
		1x1 1x1 1x1 1x1
		(4)

Question Number	Answer	Mark
11(b)	<p>Two reasons given from:</p> <ul style="list-style-type: none"> <li>to combine/improve the performance properties of the fibres (1)</li> <li>to make fabrics more economical (1)</li> <li>to create decorative effects/textures/finishes (1)</li> <li>to produce multi coloured yarns (1)</li> </ul>	1x1 1x1
		(2)

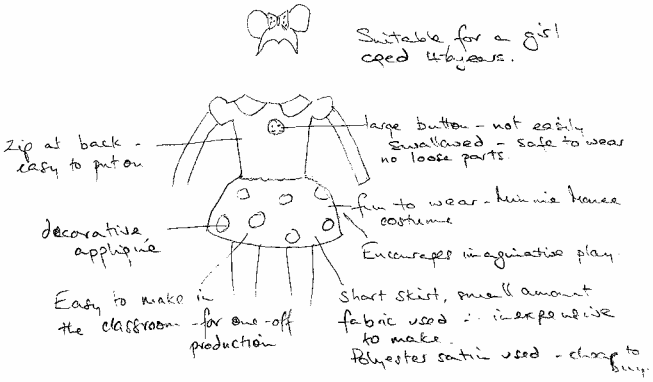
Question Number	Answer	Mark
11(c)	<p>One qualified advantages or three brief statements.</p> <ul style="list-style-type: none"> <li>Nanoparticles have a very high surface area to volume ratio (1) Allowing easier diffusion especially at high temperatures (1)</li> <li>Particles that are described on a nanoscale are between microscale (1 micron) and atomic/molecular scale (about 0.2 nanometers) (1) Particles can stick together at lower temperatures over shorter time scales than for larger particles (1)</li> </ul> <p>Provides medical benefits</p> <ul style="list-style-type: none"> <li>Photo-catalyst (light-activated chemical) that can be applied to almost any fabric (1) When exposed to light, there is a chemical reaction which allows the fabric to kill 99% of influenza viruses and 99.99% of the vaccinia virus, which causes rashes, fever, head and body aches (1)</li> <li>Undergarments that provides protection against mild to moderate incontinence (1) by using a layer of polymer coated hydrophilic fabric placed in an absorption region (1)</li> </ul>	2x1
		(2)

Question Number	Answer	Mark
11(d)	<p>Three weaves named from:</p> <ul style="list-style-type: none"> <li>• plain (1)</li> <li>• twill (1)</li> <li>• herringbone tweed (1)</li> <li>• gabardine (1)</li> <li>• satin (1)</li> <li>• sateen (1)</li> <li>• jacquard (1)</li> <li>• pile (1)</li> </ul> <p style="text-align: right;">1x1 1x1 1x1</p>	(3)

Question Number	Answer	Mark
11(e)	<p>Two reasons given from:</p> <ul style="list-style-type: none"> <li>• stabilise fabrics prior to embroidery/logo (1)</li> <li>• stiffen parts of shirt, eg collars/cuffs/button fronts (1)</li> <li>• to provide a firm surface for buttons to be attached/buttonholes to be made (1)</li> </ul> <p style="text-align: right;">1x1 1x1</p>	(2)

Question Number	Answer	Mark
11(f)	<p>One benefit for the designer explained from:</p> <ul style="list-style-type: none"> <li>• performs repetitive tasks quickly (1) so designers can spend more time on research and creating new ideas (1)</li> <li>• easily/quickly fills in and changes colours/patterns/fabrics (1) so that the designer can see the design in different colourways/patterned fabric (1)</li> <li>• can cut and paste motifs (1) so the designer can see the effect of rotated, mirrored, squashed or stretched designs (1)</li> <li>• knitting stitches/woven structures can be simulated (1) so the designer can see the effect on the complete garment (1)</li> <li>• images can be stored on the computer (1) and then used again later (1)</li> <li>• designs/style features/errors can be adapted quickly/easily (1) so the designer does not have to start again from scratch (1)</li> <li>• allows a completed design to be seen from all angles/3D/different views (1) so the designer can see the effect of the complete garment (1)</li> <li>• electronic transfer of data possible (1) so that designs can be e-mailed to colleagues/clients making the process faster (1)</li> </ul> <p style="text-align: right;">2x1</p>	(2)

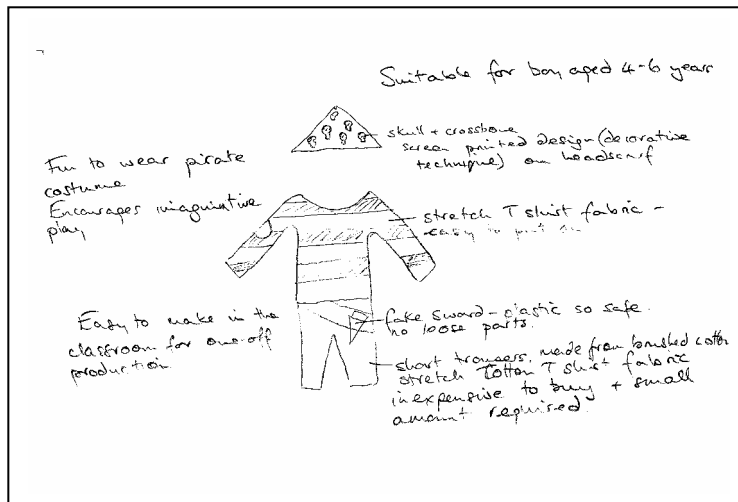
Question Number	Answer	Mark
11(g)	<p>Any four stages from:</p> <p><b>Durability test instructions – award marks for diagrams and notes.</b></p> <ul style="list-style-type: none"> <li>• Glasspaper/sandpaper block (1)</li> <li>• Fabric wrapped around a wooden block or stretched over a jar (1)</li> <li>• Rubbed on piece of glasspaper/sandpaper (1)</li> <li>• Fair test – count number of rubs/same pressure used (1)</li> <li>• Results record – amount of wear/holes/pilling (1)</li> <li>• Compare with control/other fabrics (1)</li> </ul> <div data-bbox="389 622 1090 936" style="border: 1px solid black; padding: 10px; margin: 10px 0;"> </div>	<p>4x1</p> <p>(4)</p>

Question Number	Answer	Mark
12	<p><b>Design idea 1</b></p> <p>1 mark should be awarded for evidence of each point of the specification resolved in the design.</p> <p>When an answer does not viably answer a specification point 0 marks.</p> <p>For each specification point with the element viably satisfied 1 mark.</p> <p>Candidates may answer any specification point in either graphical form or by annotation.</p> <p><b>No marks are awarded for the quality of communication.</b></p> <ul style="list-style-type: none"> <li>• <b>Cheap to make (1):</b> eg inexpensive fabrics/few components or decorations</li> <li>• <b>Fun to wear (1):</b> eg any creative design idea/suitable theme/use of bright colours/bold designs</li> <li>• <b>Encourage imaginative play (1):</b> eg effective disguise, eg Superhero/cartoon character/fairytale character/animal/uniform</li> <li>• <b>Safe to wear (1):</b> eg non-flammable fabric, no loose pieces, no tripping, reflective fabric</li> <li>• <b>Use decorative techniques (1):</b> eg appliqué, embroidery, sequins, fur trim, paint, buttons, different coloured fabrics, ric rac, braid, frills</li> <li>• <b>Easy to put on and take off (1):</b> eg elasticated waist, open down the length, use of Velcro, no back fastenings</li> <li>• <b>Consist of two separate garments (1):</b> eg two clearly identified pieces of clothing/accessories</li> <li>• <b>Be suitable for one-off production (1):</b> eg evidence that the process is suitable for one-off production, eg shape, features or decoration which make it more suitable for one-off</li> </ul> <div data-bbox="357 1496 1102 1939" style="border: 1px solid black; padding: 10px; margin-top: 20px;">  <p>The drawing shows a two-piece outfit: a short-sleeved top and a matching skirt. Handwritten annotations include:</p> <ul style="list-style-type: none"> <li>Top: "zip at back - easy to put on", "large button - not easily swallowed - safe to wear no loose parts", "decorative appliqué", "Easy to make in the classroom - for one-off production", "Suitable for a girl aged 4-6 years.", "Encourages imaginative play."</li> <li>Skirt: "fun to wear - hula hoer costume", "Short skirt, small amount fabric used ∴ inexpensive to make.", "Polyester satin used - cheap to buy."</li> </ul> </div>	<p style="text-align: right;"><b>8x1</b></p> <p style="text-align: right;"><b>(8)</b></p>

## Design idea 2

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

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



8x1

(8)



Question Number	Answer	Mark
13(a)	<p>Two properties and linked justification from:</p> <ul style="list-style-type: none"> <li>• <b>Property:</b> soft/comfortable to wear (1)</li> <li>• <b>Justification:</b> will not be uncomfortable/children will want to wear it (1)</li>   <li>• <b>Property:</b> absorbent (1)</li> <li>• <b>Justification:</b> will absorb perspiration when playing (1)</li>   <li>• <b>Property:</b> fabric is warm (1)</li> <li>• <b>Justification:</b> keep the child warm – function of the coat (1)</li>   <li>• <b>Property:</b> durable/hardwearing/resist abrasion (1)</li> <li>• <b>Justification:</b> children active/play so need to withstand constant strain/wear and tear (1)</li>   <li>• <b>Property:</b> hypoallergenic (1)</li> <li>• <b>Justification:</b> child can wear safely/without risk of irritation (1)</li>   <li>• <b>Property:</b> washes well/easily washed/cared for (1)</li> <li>• <b>Justification:</b> children get dirty easily (1)</li>   <li>• <b>Property:</b> dyes easily/well (1)</li> <li>• <b>Justification:</b> purchase in a variety of colours/increases sales (1)</li> </ul> <p style="text-align: right;">2x1 2x1</p>	(4)

Question Number	Answer	Mark
13(b)	<p>Correct two stages identified:</p> <ul style="list-style-type: none"> <li>• 2. turn top edge right side (RS) together and sew down both edges on seam line. Turn to RS and press/make a hem on top edge (1)</li> <li>• 4. pin/tack (1)</li> </ul> <p style="text-align: right;">1x1 1x1</p>	(2)

Question Number	Answer	Mark
13(c)(i)	<p>1 mark - brief mention of how the coat protects the wearer from the cold eg the coat has a zipped front (1)</p> <p>2 marks - a developed explanation of how the fabric is able to be washed so frequently.</p> <ul style="list-style-type: none"> <li>• eg the coat has a zipped front so it does not allow cold air to enter (1)</li> <li>• hood covers the head (1) and so keeps wearer warm by protecting the head (1)</li> <li>• knitted/elasticated sleeves/tight fitting sleeves (1) so do not allow heat to escape through cuffs/does not let cold air in (1)</li> </ul> <p style="text-align: right;">2x1</p>	(2)

Question Number	Answer	Mark
13(c)(ii)	<p>1 mark - brief mention of how the fabric is suitable for frequent washing.</p> <p>2 marks - a developed explanation of how the fabric is able to be washed so frequently.</p> <ul style="list-style-type: none"> <li>• Made from brushed cotton therefore washes well (1) easy care machine washable fabric (1)</li> <li>• Can be washed at relatively high temperatures (1) necessary as children get dirty easily/quickly or high temperatures can be used to remove stains(1)</li> <li>• Brushed cotton/twill weave fabrics are hardwearing (1) and so can withstand abrasive motions of scrubbing fabric remove stains (1).</li> </ul> <p style="text-align: right;">2x1</p>	(2)

Question Number	Answer																			
13(d) QWC (iii)	<p>Evaluation to address the following issues:</p> <table border="1"> <thead> <tr> <th>Garment A</th> <th>Garment B</th> </tr> </thead> <tbody> <tr> <td>Nylon is a waterproof fabric which means water will run off. Garment not completely waterproofed without taped seams.</td> <td>Brushed cotton will absorb up to 1/3 in weight with prolonged exposure to rain. Would need a lining to stop child getting wet.</td> </tr> <tr> <td>Has a longer tail at the back/front which stops the rain from splashing onto the wearers clothing, especially if bending.</td> <td>Ends over the rear but will rise if child bends forward exposing back.</td> </tr> <tr> <td>High neck protect against the cold. Zip ends just under chin.</td> <td>Zip encloses neck but not fully so area are still exposed.</td> </tr> <tr> <td>No pockets available for hands.</td> <td>Side pockets may be used to keep hands warm.</td> </tr> <tr> <td>Resistant to wind because nylon fabric is windproof/but is cool against the skin so child does not gain warmth.</td> <td>Resistant to wind. Brushed surface makes it warmer as raised fibres trap air insulating wearer/soft and warm against skin.</td> </tr> <tr> <td>Hood covers the head and so keeps wearer dry by protecting the head.</td> <td>Hood covers the head and so keeps wearer warm by stopping heat escaping from head.</td> </tr> <tr> <td>Poppers do close all areas fully therefore lets drafts in as is not sealed.</td> <td>Zip closes completely insulating body and has ribbed sleeves do not allow heat to escape through cuffs. Stops cold air and rain getting in.</td> </tr> <tr> <td>Loose fitting so is easier to put over other clothing/doesn't restrict movement/provides plenty of</td> <td>Sleeves are loose cut under arms but can get tight as child grows. Less reach available than A.</td> </tr> </tbody> </table>		Garment A	Garment B	Nylon is a waterproof fabric which means water will run off. Garment not completely waterproofed without taped seams.	Brushed cotton will absorb up to 1/3 in weight with prolonged exposure to rain. Would need a lining to stop child getting wet.	Has a longer tail at the back/front which stops the rain from splashing onto the wearers clothing, especially if bending.	Ends over the rear but will rise if child bends forward exposing back.	High neck protect against the cold. Zip ends just under chin.	Zip encloses neck but not fully so area are still exposed.	No pockets available for hands.	Side pockets may be used to keep hands warm.	Resistant to wind because nylon fabric is windproof/but is cool against the skin so child does not gain warmth.	Resistant to wind. Brushed surface makes it warmer as raised fibres trap air insulating wearer/soft and warm against skin.	Hood covers the head and so keeps wearer dry by protecting the head.	Hood covers the head and so keeps wearer warm by stopping heat escaping from head.	Poppers do close all areas fully therefore lets drafts in as is not sealed.	Zip closes completely insulating body and has ribbed sleeves do not allow heat to escape through cuffs. Stops cold air and rain getting in.	Loose fitting so is easier to put over other clothing/doesn't restrict movement/provides plenty of	Sleeves are loose cut under arms but can get tight as child grows. Less reach available than A.
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Level 1	1-2	Candidate identifies the area(s) of comparison with no development OR identifies and develops one area. Shows limited understanding of the comparison. Writing communicates ideas using everyday language but the response lacks clarity and organisation. The student spells, punctuates and uses the rules of grammar with limited accuracy.																		
Level 2	3-4	Candidate identifies some areas of comparison with associated developments showing some understanding of the comparison. Writing communicates ideas using D&T terms accurately and showing some direction and control in the organising of material. The student uses some of the rules of grammar appropriately and spells and punctuates with some accuracy, although some spelling errors may still be found.																		

Level 3	5-6	Candidate identifies a range of areas of comparison with associated developments showing a detailed understanding of the comparison. Writing communicates ideas effectively, using a range of appropriately selected D&T terms and organising information clearly and coherently. The student spells, punctuates and uses the rules of grammar with considerable accuracy.
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Question Number	Answer	Mark
14(a)	<p>Two ways given from:</p> <ul style="list-style-type: none"> <li>information is passed quickly between manufacturer and client (1)</li> <li>information/designs/drawings can be easily shared using attachments/scanned documents (1)</li> <li>client can view at an appropriate time/place (1)</li> </ul> <p style="text-align: right;">1x1 1x1</p>	(2)

Question Number	Answer	Mark
14(b)	<p>Two benefits to retailers explained from:</p> <ul style="list-style-type: none"> <li>sales trends can be monitored resulting in increase/decrease in production (1) because shops/suppliers/buyers are aware of sales figures (1)</li> <li>sales trends monitored and poor performing sales identified (1) can be promoted by the retailer/shop (1)</li> <li>the retailer/shop/warehouse can avoid running out of stock (1) and can reorder quickly because they have a record of items sold/popular items (1)</li> <li>price changes can be built into the system (1) therefore speeding up information about profit and loss (1)</li> </ul> <p style="text-align: right;">2x1 2x1</p>	(4)

Question Number	Answer	Mark
14(c)(i)	<p>One advantage explained from:</p> <ul style="list-style-type: none"> <li>clothes are made to fit to exact body measurements (1) so no problems when clients are not a standard size (1)</li> <li>perfect fit (1) means you would look good in clothes/raise confidence (1)</li> <li>quicker (1) because it maps and records a person's measurements faster than traditional methods (1)</li> </ul> <p style="text-align: right;">2x1</p>	(2)

Question Number	Answer	Mark
14(c)(ii)	<p>One disadvantages explained from:</p> <ul style="list-style-type: none"> <li>• cost (1) due to bespoke nature of garments (1)</li> <li>• cannot buy 'off the shelf' /impulse (1) which is part of the joy of shopping/cannot wear that night (1)</li> <li>• the cost of setting up/buying equipment is high (1) and so these costs are passed on to the consumer (1)</li> </ul> <p style="text-align: right;">2x1</p>	(2)

Question Number	Answer	Mark
14(d)	<p>Three ethical reasons given from:</p> <ul style="list-style-type: none"> <li>• paid lower wages (1)</li> <li>• workers paid by piece work (numbers produced) (1)</li> <li>• conditions/working environment poor (1)</li> <li>• expected to work long hours to produce large quantities (1)</li> <li>• child labour used (1)</li> <li>• 'middle men' /multi-national companies make big profits (1)</li> <li>• transportation adds to emissions in environment (1)</li> </ul> <p style="text-align: right;">1x1 1x1 1x1</p>	(3)

Question Number	Answer	
14(e) QWC (iii)	<p>Indicative content</p> <p>Discussion to address the following issues:</p> <ul style="list-style-type: none"> <li>• reduce materials used in packaging/improve layplans to reduce amount of materials used which reduces waste</li> <li>• reuse materials and products/recycle/cut down use of synthetic/non-renewable fibres to reduce the amount of waste in landfill</li> <li>• use efficient machinery/switch off lights/turn down heating which reduces energy use</li> <li>• use renewable sources of energy, eg wind energy using turbines and wind farms or solar energy which reduces fossil fuel consumption</li> <li>• reuse water/purify waste water/dyeing using different technologies to reduce the amount of water needed</li> <li>• fit scrubbers to chimneys/clean effluents before releasing into atmosphere to reduce CO<sub>2</sub> emissions</li> <li>• reduce transportation to reduce emissions</li> </ul>	
Level	Mark	Descriptor
	0	No rewardable material
Level 1	1-2	Candidate identifies the way(s) with no development OR identifies and develops one way. Shows limited understanding of the ways. The student uses basic language and the response lacks clarity and organisation. Spelling, punctuation and the rules of grammar used with limited accuracy.
Level 2	3-4	Candidate identifies some ways with associated developments showing some understanding of the ways. The student uses some design and technology terms and shows some focus and organisation. Spelling, punctuation and the rules of grammar used with some accuracy. Some spelling errors may still be found.
Level 3	5-6	Candidate identifies a range of ways with associated developments showing a detailed understanding of the ways. The student uses a range of appropriate design and technology terms and shows good focus and organisation. Spelling, punctuation and the rules of grammar used with considerable accuracy.