



ASSESSMENT and
QUALIFICATIONS
ALLIANCE

Mark scheme

June 2003

GCSE

Design and Technology Textiles Technology

3547 (Full Course)

Higher

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DESIGN AND TECHNOLOGY: TEXTILES TECHNOLOGY

Full Course – Higher Tier**Response to be awarded credit**

NB This mark scheme is intended as a guide to the type of answer expected but is not intended to be exhaustive or prescriptive. If candidates offer other answers which are equally valid **they must be given credit**.

Many responses at this level are assessed according to the **quality** of the work rather than the number of points included. The following level descriptors are intended to be a guide when assessing the quality of a candidate's response.

Quality of Written Communication

The published criteria for the marking of spelling, punctuation and grammar are not applied to these papers.

Many responses at this level are assessed according to the **quality** of the work rather than the number of points included. The following level descriptors are intended to be a guide when assessing the quality of a candidate's response.

- Level 1** The candidate has a basic but possibly confused grasp of the issues. Few correct examples are given to illustrate points made. This candidate does not have a clear idea of what s/he is talking about
- Level 2** The candidate has some knowledge but there will be less clarity of understanding. Some correct examples given to illustrate points made. This candidate knows what s/he is talking about but is confused in part.
- Level 3** This candidate has a thorough understanding of the issues and has provided relevant examples to support the knowledge shown. This candidate knows what s/he is talking about.

Question 1

- a) e.g. Catwalk shows of current designers, trade shows, market research data, use of Internet to find information about fashions and new fabrics, fashion magazines. Not books.

Marks awarded as follows:

Level 1 Simple statement, e.g. 'use Internet/ market research' 1 mark

Level 2 Minimal detail of one or two methods 2 marks

Level 3 Detail of two or three appropriate methods. There may be more information about 2 methods or less about 3 methods. 3-4 marks
4 marks

- b) e.g. shape of insect bodies, used for shape of product or decoration, colours on body, used for colour in product, markings on parts of body, used for decoration, form of insect eye, used for decoration

Any two appropriate investigations 1 mark each, plus 1 mark for use **4 marks**

Total 8 marks

Question 2

- a) e.g. details of size, colour, shape, specified target market.
Not attractive or cost effective
Any 2 appropriate points 1 mark each
Must not be repeated **2 marks**
- b) i) 2 sketches to show different initial ideas for product.
2 sketches, 4 marks each
NB. Candidates are not to be penalised if they do not use pencil.
Marks awarded as follows:
- | | |
|---|--------------|
| Weak sketch with little detail shown | 1 mark each |
| Good clear sketch showing some detail, may be same product with different styling/ decoration | 2 marks each |
| Clear sketch which shows some detail and is different to other or is a modification of other | 3 marks each |
| Detailed sketches showing 2 different products clearly. It is clear what is intended | 4 marks each |
- 8 marks**
- iii) Look at the general statement. Holistic.
Candidate should evaluate selected design for intended end use.
Marks awarded as follows:
- | | |
|---|---------|
| Simple statement, e.g. ‘I like the shape’ | 1 mark |
| More detailed statement with example e.g. ‘the shape allows the decoration to be seen from all sides’ | 2 marks |
- 2 marks**
- c) Area for development may include shape, decoration, fastening or other as appropriate to product.
Marks awarded as follows:
- | | |
|--|---------|
| Part of product to be developed identified | 1 mark |
| Plus | |
| Simple change which has little impact | 1 mark |
| Clearly shown change which is different | 2 marks |
- 3 marks**

d) **Final design** for product to include:

Materials	Poor choice of fabric/ inappropriate components, do not reflect theme	1 mark
	Sound choice of fabrics/ other materials but will not be used to advantage (Cut off point 2 marks max. if no fabric or component mentioned)	2 marks
	Good choice of materials, may not be a wide choice but used to develop theme effectively	3-4 marks 4 marks
Manipulation of fabric	e.g. quilting, applique', pleats, tie-die. Not batique, crayons, printing	
	Little detail shown, lacks clarity	1 mark
	Clearly shown and appropriate for product, may include large scale of section involved	2-3 marks 3 marks
Colours	Colour indicated but immature and not used to effect	1 mark
	Choice is pedantic, does not make product exciting	2 marks
	Used effectively/ imaginatively, mature and sensitive choice, sophistication not childish	3-4 marks 4 marks

Quality of design

The following should be considered:

Modern, original and imaginative design, balanced composition /effective use of space, effective use of theme, proportions appropriate for intended use, ability of product to be manufactured.

Marks awarded as follows:

Level 1	Lack of detail, unimaginative design which does not clearly relate to theme, poor use of space	1-2 marks
Level 1/2	Unimaginative design with little thought given to intended end use, relates to theme but may not be clear, overall balance weak. Product may not be easy to manufacture in quantity.	3-4 marks
Level 2	Sound design related to theme with clear detail about product and end- use- this may be inappropriate in places. Design lacks imagination. Overall composition may be weak. Product may not be easy to manufacture in quantity.	5-6 marks
Level 2/3	Clear detailed design related to spec. Good quality and imaginative design for product suitable for end use. Space used effectively (not space on sheet). Product will be able to be manufactured in quantity.	7-8 marks 8 marks

Quality of presentation

Lack of care in presenting work, candidate will not communicate clear information about product

1 mark

Candidate has taken care with presentation and labelling and most information about product is clear

2 marks

Well presented showing product clearly which will usually include information about back view, labelling is used to communicate what is intended. Candidate may have included exploded views or extra sketches to aid explanation.

3 marks

3 marks

22 marks

Total 37 marks

Question 3

- a) e.g. use of database of properties, use of Internet to find information about fabrics and components, use of image mapping or virtual prototype to assess fabric texture, pattern or drape
Saves time and money.
3D modelling- mark if this is what the candidate is discussing

Marks awarded as follows:

Level 1 Simple statement, e.g. 'use Internet/ or a database' 1 mark

Level 2 Minimal detail of one or two methods 2-3 marks

Level 3 Detail of two or three appropriate methods. There may be more information about 2 methods or less about 3 methods. 4-5 marks
5 marks

- b) e.g. use of textured fabrics/ to simulate insect body, shiny fabrics to reflect light, use of beads/ sequins to represent eyes, use of threads to form markings. Not natural fibres and fabrics.

Level 1 Minimal detail of fabric/ components, will probably give fabric properties rather than explanation of how the theme is reflected 1-2 marks

Level 2 Some detail of appropriate fabric/ components which reflect theme but there is a lack of clarity about how the theme is reflected. May be some inappropriate reference to fibre/ fabric properties 3-4 marks

Level 3 Detail of appropriate fabric/ components together with detailed explanation for use in relation to theme. 5-6 marks
6 marks

- c) i) Candidate should explain how the fabric is to be manipulated to make product interesting but are not required to give detail of how to make the feature.
Points may relate to method, appearance, tactile qualities as appropriate

Marks awarded as follows:

Minimal detail of a method which adds little interest 1-2 marks

Detail of an appropriate method which makes product interesting. Some reference may be made to fabric type. 3-5 marks

5 marks

- ii) Can get marks on this question even if previous question was answered incorrectly.
Detail of fabric qualities as appropriate to feature described, e.g. lightweight, transparent, shiny, texture, fluid, stable/ flexible.

Any two appropriate qualities

1 mark each

Plus some explanation as to why they are needed

1 mark each

4 marks

Total 20 marks

Question 4

- a) e.g. check that pattern is 'straight', flaws in weave/ knit, fabric is not twisted, colour is even, printed pattern is not smudged or out of register, dirty/ marked.
Not fraying. Not width or quantity, not testings, not colour.

Marks awarded as follows:

Level 1	Simple statement, e.g. 'make sure there are no faults'	1 mark
Level 2	Minimal detail of one or two checks	2-3 marks
Level 3	Detail of two or three appropriate checks. There may be more information about 2 checks or less about 3 checks.	4-5 marks 5 marks

- b) e.g. pattern piece put on straight grain to avoid twisting of fabric or printed/ woven pattern being skewed; pattern pieces must not overlap or they will be inaccurately cut, fabric must be used economically, to avoid excessive waste and high costs, cutting must be accurate so product is size and shape intended, any fabric pattern will need to be matched across pattern pieces, nap and one-way fabrics will need to have pattern pieces laid in same direction.

Marks awarded as follows:

Level 1	Simple statement, e.g. 'lays pattern pieces economically'. This candidate shows little understanding of care needed.	1-2 marks
Level 2/3	More detailed information with example(s). This candidate has a good understanding of the care needed and gives a limited number of points or a wider range with little explanation	3-4 marks 4 marks
c)	Materials are delivered as they are required Saves storage costs Also accept when a product is completed for use shortly before it is needed	1 mark 1 mark 2 marks

- d) i) Produces goods which do not involve very large numbers (1 mark), batch may be repeated later (1 mark)
many skilled workers involved (1 mark)
2 points 1 mark each **or** one point in more detail 2 marks
- ii) Limited number to be made (1 mark), most economical (1 mark)
product may change according to market demand (1 mark),
workers may be able to specialise in a particular job (1 mark),
equipment and workers can be changed to different jobs
according to demand (1 mark), products will be made to high
quality.
2 points 1 mark each 2 marks
4 marks
- e) i) Smaller sections of product (1 mark)
Put together before main assembly (1 mark) 2 marks
- ii) Workers become skilled at the process, flexible workforce,
may allow for product sections to be brought in from
elsewhere
Better quality (more efficient/ quick) cost effective – 1 mark
only 2 marks
2 points each, 1 mark each
- iii) Candidates should identify one part of own product which could
be made as a sub-assembly 1 mark
5 marks
- f) i) e.g. accuracy of manufacture, speed of manufacture, all products
the same, better quality of finish, reduction in labour costs, less
people needed to work the machines
- Marks awarded as follows:**
Candidates may give a list of four points **or**
Give fewer points with some detail about each 1 mark each 4 marks
- ii) Must relate to product.
Appropriate reference to named process.
Any 2 points, 1 mark each 2 marks
6 marks

- g) e.g. employment costs cheaper abroad but workers may be exploited, workers more willing to undertake menial tasks but reduced employment chances in UK, workforce may be more skilled at some techniques, materials may be locally available instead of being transported across countries cheaper overheads but this may be at the expense of less rigorous environmental, health and safety regulations, e.g. use of dangerous materials/ processes, working environment with respect to health, ergonomics of work station, ventilation, heating and lighting, guards on machines, condition of machines, protective clothing as required, adequate staff training.

Marks are awarded as follows:

Level 1	Simple statement, e.g. 'workers are paid less'. This candidate will tend to concentrate superficially on only a few issues and offers little information, many aspects will be ignored	1-3 mark
Level 2	More detailed information with example(s). This candidate has some understanding of issues at a basic level or may have more detailed understanding of a few issues	4-7 marks
Level 3	Sound understanding of issues involved with accurate and appropriate examples given across a wide range of issues	8-10 marks

10 marks
Total 36 marks

Question 5

- a) Candidates must not repeat the information already given e.g. not strong
e.g. shape of bag with gusset gives room for various items, internal pocket for security, external pocket gives extra space, size of bag allows for carrying of larger items

Allow comments about the zip for one mark. No comments about fabric/ fabric qualities

Marks awarded as follows:

Candidate may give a list of four points or
Give fewer points with some detail about each

1 mark each

4 marks

- b) Holistic e.g. nylon fabric is very strong so will take wear and tear, is washable and quick drying so product can be easily cleaned, lightweight so does not add to weight of load, water resistant.

Marks awarded as follows:

Candidate will give little information, will tend to copy out information given rather than explaining its significance

1 mark

Candidate will refer to fabric with understanding and some links with potential use of bag

2-3 marks

3 marks

- c) i) Candidate should consider alternative fastenings, poppers or Velcro instead of zip, and evaluate their suitability compared to the zip.

Marks awarded as follows:

Simple explanation, e.g. 'zip is strong, poppers are not'

1-2 marks

Limited comparisons, may refer in detail to one fastening or less detail of fewer alternatives

3-4 marks

Detailed comparisons made which give the pros and cons of a number of alternatives

5-6 marks

6 marks

- c) ii) e.g. straps wrap round bag for extra strength, are stitched in at base of bag for strength, webbing is strong and provides a neat finish. Straps could have been made from bag fabric or inserted at top only.

Marks awarded as follows:

Simple explanation, e.g. 'webbing is strong' 1-2 marks

More detailed explanation with some comparison made with limited alternatives 3-4 marks

Detailed explanation of use of webbing, thorough comparisons made with alternative(s) 5-6 marks

6 marks

- d) e.g. more economical, no need for major changes in production schedules, experienced workers, fabric layouts can be re-used

Marks awarded as follows:

Candidate may give a list of five points - 1 mark each

Or

Give fewer points with some detail about each

5 marks

Total 24 marks

Total Marks on Paper 125