

Unit 120: Fashion Media, Techniques and Technology

Code:	A/502/5384
QCF Level 3:	BTEC National
Credit value:	10
Guided learning hours:	60

● Aim and purpose

This unit enables learners to develop their skills in creative work in the fashion industry through the exploration of a range of materials, construction techniques and garment making technologies associated with fashion design.

● Unit introduction

This unit enables learners to develop their potential for creative work in the fashion industry through the exploration of a range of materials and technical skills associated with fashion design and making.

The understanding of the characteristics of a wide range of fashion materials and processes is essential to success in today's competitive and constantly evolving fashion industry. A fashion designer needs to have a broad understanding of materials and technical processes to draw upon to successfully satisfy the requirements of a wide range of design briefs. The ability to explore, experiment with and evaluate a wide range of traditional and innovative fashion materials and construction processes will equip the learner with the skills to thrive in a rapidly developing sector.

On completion of this unit learners have explored and evaluated a range of fashion materials and processes and will understand their potential in garment making. This knowledge base will enable learners to select fashion materials and processes for fashion outcomes to meet the requirements for specific briefs. Learners will become familiar with the main stages involved in the commercial production of clothing and gain awareness of the purposes and use of computer-aided design (CAD) and computer-aided manufacture (CAM) in the fashion industry.

This unit is suitable preparation for *Production Techniques for Fashion and Clothing*, which explores the fashion design process, from the initial development of ideas through to the creation of the final outcome(s). This unit will also give a solid foundation of technical skills for study at a higher level.

● Learning outcomes

On completion of this unit a learner should:

- 1 Be able to investigate fashion making processes
- 2 Be able to use fashion media, techniques and technology safely
- 3 Understand the properties of fashion materials and explore their potential
- 4 Be able to produce a finished product.

Unit content

1 Be able to investigate fashion making processes

Basic pattern-cutting: design a pattern; pattern layout; make a pattern eg using blocks, draping, modelling on the stand (bodice, skirt, trouser blocks, slashing, pivoting of darts, dart manipulation); features eg necklines, sleeves, collars; altering patterns; drawing out; cutting of full-size pattern pieces; specific garments; identifying features eg darts, seams, facings, pockets, grain markings; care and storage of patterns

Garment construction techniques: sewing samples eg pattern pieces, material, economy, cutting for style, design; components (identify, mark); interfacings; pinning; tacking; seaming; fitting eg altering patterns, sleeves, darts, pleats, gathers

Garment finishing methods: seam finishes; facings; other finishes eg binding, hemming, lining; fastenings eg buttonholes and buttons, zippers, ties, rouleaux loops, Velcro, lacing, buckles, poppers, hooks, eyes; pressing methods; pressing characteristics of fabrics

Functions and use of hand tools: scissors; shears; pattern-cutting equipment eg tracing wheel, tracing paper, pattern master (junior and full size), pattern-cutting curve, set square, notchers, awl; pins and needles

Functions and use of power tools: sewing machines eg domestic, industrial; pressing and steaming equipment

Computer-aided design (CAD) and computer-aided manufacture (CAM): application eg software, design programmes

2 Be able to use fashion media, techniques and technology safely

Health and safety: Health and Safety at Work Act (1974) elimination of risk to self and others; Control of Substances Hazardous to Health (COSHH) Regulations (2002); tools; materials; processes; equipment; Personal Protective Equipment at Work Regulations (1992); personal protective equipment; Provision and Use of Work Equipment Regulations (1998); faults eg tools, equipment, corrective action

Workshop practice: safe workshop practice; compliance with risk assessments; studio rules eg work area, hygiene, waste, obstruction, cleanliness, equipment; waste disposal

3 Understand the properties of fashion materials and explore their potential

Materials: natural; synthetic; combinations; other fabrics eg natural and simulated hides, skins, non-woven and knitted fabrics; interlinings; fastenings; trimmings

Properties: eg drape, elasticity, insulation, strength, wash ability

Characteristics: eg texture, feel, weave, sheen, density, thickness, transparency; sewing and pressing characteristics

Features: grain; warp; nap; pile; pattern

Potential: fabric characteristics; design requirements eg outerwear, daywear, formal, informal, sports wear, performance wear, occasion dressing; adults; children

4 Be able to produce a finished product

Assemble: create eg produce, demonstrate, make up (samples, swatches, test pieces, final product); issues eg problems, points,, impact, final production; specifications eg garment pieces, sewing techniques

Produce: potential; limitations fitness for purpose; finish; aesthetic qualities eg fashion fabrics, garments; sewing methods; needle size; stitch variations; trial samples; process eg seams, fabrics final garments; record eg annotated worksheets, note books, sketchbooks, design sheets

Present outcomes presentation planning: eg methods, demonstration, digital, worksheets, design developments, finished product, individual item, collection; format eg static display, fashion show, on-screen; target audience

Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
P1 investigate fashion making processes [CT]	M1 use fashion processes in a controlled and purposeful way, comparing the characteristics and properties of diverse fashion making processes	D1 independently and creatively develop an innovative fashion media, materials and technology product towards producing an exciting and original presentation.
P2 use fashion media, techniques and technology safely [RL, TW, SM, EP]	M2 demonstrate experimental and effective use of fashion media, materials and processes in presenting finished product.	
P3 review the properties of fashion materials against design requirements [RL, TW, EP]		
P4 produce a finished product. [IE, RL]		

PLTS: This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills applicable in the pass criteria. It identifies opportunities for learners to demonstrate effective application of the referenced elements of the skills.

Key	IE – independent enquirers CT – creative thinkers	RL – reflective learners TW – team workers	SM – self-managers EP – effective participators
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Essential guidance for tutors

Delivery

A major focus of this unit is to equip learners with sufficient skills to interpret and carry through their design ideas into a toile or finished garment.

Learning outcome 1 requires that learners can investigate fashion making processes, including designing and making patterns. Learners can be taught pattern-cutting from blocks or drape modelling on stands. Ideally learners who are taught drape modelling should also make a simple paper pattern from a block. Learners will need to understand how to alter patterns to fit different body shapes.

Learning outcome 1 also requires learners to be taught how to sew by hand and machine and understand how to decide on suitable fabric use. Learners will need to be taught to recognise the qualities of the traditional skills associated with garment construction and fitting methods, fastening, finishing and embellishing. These skills will provide a sound basis for self-directed study in response to design briefs. Additionally, learners should be made aware of the use and potential of CAD and CAM in the fashion industry. This may take the form of a taught session or an industrial visit.

For learning outcome 2 the health and safety issues relating to workshop practice must be stressed. Learners will need to be advised of, and adhere to, all aspects of current legislation associated with health and safety practices in the studio or workplace. Learners should be encouraged to make a risk assessment of their workshop or studio. The appropriate COSHH guidance should be covered.

For learning outcome 3, learners should gain an understanding of the properties and sewing characteristics of a variety of fashion materials. This understanding may be delivered as a series of taught exercises. Learners will need to evaluate the properties of a variety of fashion materials and be able to recommend fabrics for different fashion wear. They should also be able to comment on the quality of the finished garments. The materials explored could focus on one particular group of fabrics, for example stretch fabrics for an active sportswear project or a range of heavier materials if focusing on a winter collection in response to given briefs.

Learning outcome 4 requires that learners should be encouraged to work on producing well made and finished garments from imaginative patterns. They should be encouraged to explore creative and unusual ways of using traditional and recently developed materials and processes. Learners are expected to review their progress throughout the process of completing their designs.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments and activities
Introduction to unit.
Assignment 1: Introduction to Correct Use and Safe Handling of Tools and Equipment Students to develop risk assessments.
Assignment 2: Introduction to Basic Block Making and Simple Adaptation Learner initiated study.
Introduction to basic sewing techniques. Learner initiated study.
Lecture – Introduction to fabrics, materials and their properties.
Assignment 3: Fabrics and Materials Exploration and recording. Stitch samples. Learner initiated study
Assignment 4: Garment Design and Making Design. Pattern construction. Samples or toile. Garment production. Learner initiated study.
Presentation, evaluation and feedback.
Unit review and assessment.

Assessment

For P1, learners will be expected to demonstrate knowledge of fashion-making processes. Learners must be able to make their own patterns from blocks or by using a stand and drape modelling. Awareness of the use of CAD and CAM within the fashion industry may be demonstrated by a piece of research, possibly taking the form of a short illustrated essay or a review of an appropriate industrial visit.

For P2 learners need to produce a collection of technically well sewn samples. Learners need to use fashion-making processes safely, following health and safety guidelines and studio regulations. Assessment evidence should be generated by a range of sample work showing effective use of garment construction techniques, finishing and fastening methods and the use of relevant hand and power tools.

For P3, learners need to show evidence of their understanding of fashion materials. This may take the form of a collection of samples of the main types of materials, including notes on the properties, characteristics and features of samples of materials. Learners should also show that they have used different types of fabric in their finished garments presented for assessment. Learners might produce annotated worksheets, sketchbooks, note books

or design sheets demonstrating their understanding of fabric characteristics and properties against design and other requirements. Tutors might assist learners in achieving this criteria by using taped presentations or review sessions, witness or observation records and video footage.

P4 requires the learner to assemble a garment using appropriate constructions techniques. To achieve a pass the standard of construction and finish should be appropriate for this level and the garment should be wearable. Learners should review their finished garment for quality of finish, effective use of materials, the fit, hang and overall effect. This may take the form of written notes or an audio record (possibly using methods of demonstrating evidence stated above for P3) that comments on the quality of the finished garments.

M1 requires the controlled and individual use of fashion materials and processes.

For M2 learners need to demonstrate an effective use of materials and processes in presenting final garments. Evidence may take the form of sample work developed by learners in response to a specific fashion brief. Learners will be expected to demonstrate an increasingly independent and experimental approach to their work. Garments should be well constructed and finished. Learners should be able to make considered evaluations of their final garments.

D1 requires learners to use fashion materials and processes in an independent and creative way to produce high quality, well-finished garments. Learners' should exhibit creativity in their designs and an understanding of the properties of fashion materials. Learners will generate and explore innovative ideas showing the ability to refine, review and evaluate their exploratory practical work independently in response to given fashion briefs. In presenting their final work, learners will demonstrate exciting methods of communicating their ideas with sensitivity to the needs of different audiences.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the assessment and grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P2	Assignment 1: Introduction to Correct Use and Safe Handling of Tools and Equipment	Textile artist undergoing health and safety training.	Presentation.
PI, P2 M1	Assignment 2: Introduction to Basic Block Making and Simple Adaptation	Pattern maker learning new techniques.	Presentation of paper patterns.
PI, P2, P3, P4 M1, M2 D1	Assignment 3: Fabrics and Materials	Fashion designer exploring new materials.	Folder of fabric and technical stitched samples. Written and illustrated notes with evaluations.
PI, P2, P3, P4 M1, M2 D1	Assignment 4: Garment Design and Making	Dressmaker creating new garment.	Presentation of pattern, toile and finished garment. The process and outcome are evaluated.

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC Art and Design sector suite. This unit has particular links with the following units in the BTEC Art and Design suite:

Level 1	Level 2	Level 3
Explore and Develop Art and Design Ideas	2D Visual Communication	Exploring Specialist Techniques
Explore Materials, Techniques and Processes in Art and Design	3D Visual Communication	Fashion Visualisation
Explore Visual Language in Art and Design	Working with Fashion Design Briefs	Materials, Techniques and Processes in Art and Design
	Working with Textiles Briefs	Pattern Construction for Fashion and Clothing
		Production techniques for Fashion and Clothing

This unit also provides development opportunities for some of the underpinning skills, knowledge and understanding of the following National Occupational Standards:

Skillfast-UK Sector Skills Council

- O46NAMTech13 Construct and adapt patterns to customer requirements
- O46NAMTech14 Lay up, mark in and cut materials
- AMTech10 Assemble garments for fitting
- AMTech1 Identify and agree the construction of garments to be produced
- AMTech9 Make up apparel products from patterns
- O46NMSP6 Hand-pressing
- O46NMSP4 Carry out the sewing process
- O46NAMTech12 Complete garment to customer specification
- CC2R Contribute to realising final design products
- MSP1 Look after the work areas in manufacturing sewn products
- AMTech19 Investigate markets, materials and styles.

Essential resources

Specialist studios and workshops will be required, equipped with hand sewing resources, sewing machines and pressing equipment and fashion materials appropriate to the pathway. Learners should have access to large surfaces suitable for pattern cutting. There should also be tailors forms. In addition it is recommended that, learners have access to the following machines: an overlocker, blind hemmer and a buttonholer.

Sufficient library and internet resources, including specialist texts on fashion materials and processes, current fashion design and production methods, the characteristics and properties of fashion materials, current fashion trends and health and safety, should be available to all learners taking this unit.

Employer engagement and vocational contexts

Centres should develop links with practising artists, craftspeople and designers, to deliver assignments to learners or to provide work experience.

Links with employers are essential to the delivery of the programme for work experience and future employment.

Vocational learning support resources:

- Learning and Skills Network – www.vocationallearning.org.uk

Business and finance advice:

- Local and regional Business Link – www.businesslink.gov.uk

Assignments should be vocationally relevant; centres should consider the delivery of 'live projects' for example to support the vocational content of the unit and programme.

Creative and cultural skills (www.ccskills.org.uk), the sector skills council for arts, crafts and design have launched the web portal Creative Choices (www.creative-choices.co.uk). This portal has a range of information about careers in the arts, crafts and design sector, including job descriptions.

Skillfast-UK, the sector skills council for fashion and textiles (www.skillfast-uk.org), provide details on their careers web pages (www.skillfast-uk.org/justthejob) about careers advice and industry information, plus regularly updated news and events pages.

Indicative reading for learners

Textbooks

Complete Book of Sewing (Needlecraft) (Dorling Kindersley, 2006) ISBN 978-0756628550

Aldrich W – *Fabric, Form and Flat Pattern Cutting* (Blackwell, 2007) ISBN 978-1405136204

Aldrich W – *Metric Pattern Cutting for Women's Wear* (Blackwell, 2008) ISBN 978-1405175678

Armstrong H – *Pattern Making for Fashion Design* (Prentice Hall, 2001) ISBN 978-0135018767

Black S – *Fashioning Fabrics: Contemporary Textiles in Fabrics* (Black Dog Publishing, 2006) ISBN 978-1904772415

Braddock S E and O'Mahony M – *Sportstech: Revolutionary Fabrics, Fashion and Design* (Thames & Hudson, 2002) ISBN 978-0500510865

Carr H – *Fashion Design and Product Development* (Blackwell Science, 1992) ISBN 978-0632028931

Elesesser V – *Textiles: Concepts and Principles* (Fairchild Books, 2004) ISBN 978-1563673009

Frings G – *Fashion: From Concept to Consumer* (Prentice Hall, 2004) ISBN 978-0135095676

Grey M and Wild J – *Paper, Metal and Stitch* (Batsford 2004) ISBN 978-0713490671

Relis N and Strauss G – *Sewing for Fashion Design* (Prentice Hall, 1998) ISBN 978-0134967530

Shaeffer C B – *Couture Sewing Techniques* (Taunton Press Inc US, 2001) ISBN 978-1561584970

Tallon K – *Creative Fashion Design with Illustrator* (Batsford, 2006) ISBN 978-0713490220

Tortora P – *Understanding Textiles* (Prentice Hall, 2000) ISBN 978-0134392257

Journals

Arena

Art Monthly

Art Review

Contemporary

Crafts Magazine

Creative Review

Design Magazine

Drapers

Elle Decoration

GQ

International Textiles

Selvedge – Selvedge Ltd

Vogue

Websites

www.craftscouncil.org.uk

www.design-council.org.uk

www.designmuseum.org

www.drapersonline.com/fashion/index.html

www.fashion-era.com/C20th_costume_history

www.manchestergalleries.org/our-other-venues/platt-hall-gallery-of-costume/the-collection

www.moda.mdx.ac.uk/exploring/collections/silver.htm

www.moma.org/exhibitions/1998/textiles/home.html

www.telegraph.co.uk/fashion

www.textilearts.net/directory/textile_traditions/museums

www.vam.ac.uk

www.vogue.co.uk

Crafts Council

Design Council

Design Museum

Drapers magazine

Costume timelines

Manchester Art Gallery fashion pages

Silver Studio

Website on contemporary Japanese textiles

Daily Telegraph fashion pages

Textile art

Victoria and Albert Museum

Vogue magazine

Delivery of personal, learning and thinking skills

The table below identifies the opportunities for personal, learning and thinking skills (PLTS) that have been included within the pass assessment criteria of this unit.

Skill	When learners are ...
Independent enquirers	researching and developing ideas to meet the requirements of the design brief
Creative thinkers	developing ideas to meet design intentions
Reflective learners	thinking about stages of design development and selection of materials and processes evaluating and producing outcomes
Team workers	sharing studio space and equipment handling equipment safely and with care and attention to others
Self-managers	producing work to meet deadlines and achieve outcomes
Effective participators	participating in presentation of work working safely with others.

Although PLTS are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are ...
Independent enquirers	examining fabrics and beginning to understand the construction of fashion clothes
Creative thinkers	experimenting with fashion materials and processes developing design ideas through to a final outcome exploiting technology
Reflective learners	reviewing samples processes and using experience to improve work considering environmental issues in the making process
Team workers	observing health and safety requirements for the benefit of themselves and the group
Self-managers	independently managing own sample making, construction techniques and development of outcomes
Effective participators	participating in group critique and feedback.

● Functional Skills – Level 2

Skill	When learners are ...
ICT – Use ICT systems	
Select, interact with and use ICT systems independently for a complex task to meet a variety of needs	using ICT packages to repeat and size designs
Use ICT to effectively plan work and evaluate the effectiveness of the ICT system they have used	research fashion design ideas, methods and processes including web based material and CDs
Manage information storage to enable efficient retrieval	exploring, extracting and assessing the relevance of information from websites and CDs
ICT – Find and select information	
Select and use a variety of sources of information independently for a complex task	research fashion design ideas, methods and processes including web based material and CDs
Access, search for, select and use ICT-based information and evaluate its fitness for purpose	exploring, extracting and assessing the relevance of information from websites and CDs
ICT – Develop, present and communicate information	
Enter, develop and format information independently to suit its meaning and purpose including: <ul style="list-style-type: none"> • text and tables • images • numbers • records 	designing digitally; using scanners; inputting and formatting information from sources
Bring together information to suit content and purpose	developing design ideas digitally; importing visual and textual information relevant to brief/activity
Present information in ways that are fit for purpose and audience	using digital means to plan, create and give presentations to different audiences
Evaluate the selection and use of ICT tools and facilities used to present information	assessing their progress and commenting on the appropriateness of their selection of ICT tools and facilities – eg use of software programmes
Select and use ICT to communicate and exchange information safely, responsibly and effectively including storage of messages and contact lists	exchanging emails with tutor using VLE message boards

Skill	When learners are ...
Mathematics	
Identify the situation or problem and the mathematical methods needed to tackle it	measuring own body to make pattern block making pattern block
Select and apply a range of skills to find solutions	
Use appropriate checking procedures and evaluate their effectiveness at each stage	
Interpret and communicate solutions to practical problems in familiar and unfamiliar routine contexts and situations	
English	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	discussing fashion designs of own and others discussing the project brief describing the physical properties and characteristics of different materials contributing to group discussions and the sharing of ideas evaluating own and others designs and finished work presenting to target audiences
Reading – compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions	seeking and reading and responding to research ie: <ul style="list-style-type: none"> • selecting text and images • annotating, commenting and comparing • using contextual texts and images to relate to own ideas • evidencing understanding through discussion, crit sessions, evaluations and presentations
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	annotating sketchbooks writing up formal evaluation of outcome analysing and evaluating selected artists' images for the purpose of developing own work, using personal judgements and relating research to own ideas preparing presentations of final work.