





SEG Awards Level 3 Diploma in Textiles Technology

Wales - C00/4634/4

About Us

At the Skills and Education Group Awards we continually invest in high quality qualifications, assessments and services for our chosen sectors. As a UK leading sector specialist we continue to support employers and skills providers to enable individuals to achieve the skills and knowledge needed to raise professional standards across our sectors.

Skills and Education Group Awards has an on-line registration system to help customers register learners on its qualifications, units and exams. In addition it provides features to view exam results, invoices, mark sheets and other information about learners already registered.

The system is accessed via a web browser by connecting to our secure website using a username and password: Skills and Education Group Awards Secure Login

Sources of Additional Information

The Skills and Education Group Awards website www.skillsandeducationgroupawards.co.uk provides access to a wide variety of information.

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Specification Code, Date and Issue Number

The specification code is D2162-W3.

Version	Date	Details of change
1.0	September 2022	New qualification guide
1.1	October 2022	New front page
2.0	April 2024	Qualification end date inputted (England only) Amended Qual Guide to reference available in Wales only
2.1	December 2024	Updated UKFT logo
2.2	October 2025	Updated review date to 31/12/2028

This guide should be read in conjunction with the Indicative Content document **version 2.0** which is available on our secure website using the link above.

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This is a live document and as such will be updated when required. It is the responsibility of the approved centre to ensure the most up-to-date version of the Qualification Guide is in use. Any amendments will be published on our website and centres are encouraged to check this site regularly.

Introduction

The SEG Awards Level 3 Diploma in Textiles Technology is a knowledge-based qualification designed for adults and young people (16 and above) who have an interest in textiles – their design and manufacture. The qualification offers you, the learner the opportunity to develop and demonstrate technical knowledge and understanding, of procedures and current techniques in the textile industry, at level 3.

This qualification will be put forward for inclusion as part of the Fashion and Textiles Apprenticeship Framework in Wales and Northern Ireland. For the status of this qualification within Apprenticeship Framework check the relevant web site.

Pre-requisites

There are no specific entry requirements for this qualification.

Skills and Education Group Awards expects approved centres to recruit with integrity on the basis of a trainee's ability to contribute to and successfully complete all the requirements of a unit(s) or the full qualification.

Aims

The SEG Awards Level 3 Diploma in Textiles Technology aims to provide the knowledge and understanding to support the SEG Awards Level 3 NVQ in Manufacturing Textile Products within the of the Advanced Fashion and Textiles Apprenticeship Framework.

Target Group

This qualification is designed for those learners who are working within the Fashion and Textile industry producing textile products, footwear or leather goods.

Qualification Structure and Rules of Combination

Rules of Combination: Level 3 Diploma in Textiles Technology

Learners must achieve a minimum of 37 credits at Level 3.

23 credits must come from the Mandatory units.

A minimum of 14 credits must come from the Optional units.

Unit	Unit Number	Level	Credit Value	GL
Group A Mandatory Units				
Managing health and safety and employment rights and	H/502/6299	3	7	40

responsibilities within the textile industry				
General textile technology	R/502/2264	3	9	80
Managing quality standards – textile production	K/650/2982	3	7	60
Group B Optional Units		l		
Fibre and yarn processing	H/502/2267	3	7	60
Weft knitting	M/502/2269	3	7	60
Warp knitting and lace	H/502/2270	3	7	60
Weaving	K/502/2271	3	7	60
Narrow fabric manufacture	M/502/2272	3	7	60
Carpet manufacturing processes	A/502/2274	3	7	60
Non woven fabric production	F/502/2275	3	7	60
Textiles dyeing and printing	J/502/2276	3	7	60
Textile finishing	R/502/2278	3	7	60
Knitted fabric design	Y/502/2279	3	7	60
Woven fabric design	R/502/2281	3	7	60
Knitwear and hosiery design and make-up	Y/502/2282	3	7	60
Textile testing	D/502/2283	3	7	60
Managing own relationships within textile production	M/502/6399	3	9	60
Leading teams within textile technologies	A/502/2291	3	7	60
Aspects of design within the textile industry	Y/502/6400	3	7	40
Professional practice / preparation for employment within the textile industry	D/502/6401	3	7	40

Buying including import/export within the textile industry	H/502/6402	3	9	60
Manage information for action within the textile industry	K/502/6403	3	8	50
Planning for textile production	F/502/2292	3	7	60

Practice Assessment Material

Skills and Education Group Awards confirm that there is no practice assessment material for this qualification.

Teaching Strategies and Learning Activities

Centres should adopt a delivery approach which supports the development of all individuals. The aims and aspirations of all the learners, including those with identified special needs or learning difficulties/disabilities, should be considered and appropriate support mechanisms put in place.

Progression Opportunities

This Level 3 qualification will enable progression primarily into a variety of higher level programmes and any other qualifications that have been identified strategically and mapped accordingly to the Apprenticeship Framework.

Centres should be aware that Reasonable Adjustments which may be permitted for assessment may in some instances limit a trainee's progression into the sector. Centres must, therefore, inform trainees of any limits their learning difficulty may impose on future progression

Tutor/Assessor Requirements

We require those involved in the assessment process to be suitably experienced and / or qualified. In general terms, this usually means that the assessor is knowledgeable of the subject / occupational area to a level above that which they are assessing.

Assessors should also be trained and qualified to assess or be working towards appropriate qualifications.

Centres must take all reasonable steps to avoid any part of the assessment of a learner (including any internal quality assurance and invigilation) being undertaken by any person who has a personal interest in the result of the assessment.

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Language

These specifications and associated assessment materials are in English only.

Qualification Summary

Qualification				
SEG Awards Level 3 Diploma in Textiles Technology – 610/1055/8				
Qualification Purpose	B. Prepare for further learning or training and/or develop knowledge and/or skills in a subject area B1. Prepare for further learning or training, B2. Develop knowledge and/or skills in a subject area			
Age Range	Pre 16			
Regulation	The above qualification is regulated by: • Qualification Wales			
Assessment	Internal assessmentInternal and external moderation			
Type of Funding Available	See LARS (Learning Aims Reference Service)			
Qualification/Unit Fee	See Skills and Education Group Awards web site for current fees and charges			
Grading	Pass To achieve a Pass, learners must complete all units as stated in the rule of combination (RoC)			
Operational Start Date	01/09/2022			
Review Date	31/08/2028			
Operational End Date	30/04/2024 (England only)			
Certification End Date	01/05/2024 (England only)			
Guided Learning (GL)	260 hours			
Total Qualification Time TQT)	370 hours			
Credit Value	37			
Skills and Education Group Awards Sector	Sewing and Textiles			
Ofqual SSA Sector	4.2 Manufacturing Technologies			
Support from Trade Associations/Stakeholder Support	UKFT			
Administering Office	See Skills and Education Group Awards website			

Unit Details

Managing Health and Safety and Employment Rights and Responsibilities within the Textile Industry

Unit Reference	H/502/6299
Level	3
Credit Value	7
Guided Learning (GL)	40 hours
Unit Summary	This unit will enable the learner to understand the legal requirements of employers and employees with regard to health and safety and employment law in the textile sector. The work will cover the implications of current legislation. This unit will also cover the legal aspects of employment in respect of the individual employee and form part of the induction process to the world of work. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 6) The learner will:	Assessment Criteria (1.1 to 6.2) The learner can:
Understand the health and safety requirements for the textile sector	 1.1. For a business in their chosen sector, state the health and safety requirements of employers, as required by current law 1.2. State the health and safety responsibilities of employees at each level within the business as required by law 1.3. Report how the business manages its obligations to meet current health and safety legislation
2. Be able to carry out a risk assessment within the textile sector	 2.1. Carry out a risk assessment using appropriate documentation identifying and recording hazards ranking hazards identified making recommendations to remove or minimize risk 2.2. Carry out an assessment for COSHH purposes using appropriate documentation making recommendations to remove or minimize risk

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3. Understand the career progression routes available within the textile sector	 3.1. Describe the structure and organisation of the business the main job roles in the business careers paths available 	
4. Know about their statutory rights in employment	 4.1. Describe their current statutory rights in relation to Employment Law Contracts of employment Sick pay Work Time regulations Holiday entitlement Maternal and Paternal leave Data Protection 	
5. Know about the expectations and relevant procedures in the textile sector	 5.1. Describe the standards of acceptable behaviour in the business 5.2. Explain the consequences of not meeting that standard 5.3. Describe relevant procedures within the business to include Performance management Disciplinary procedures Grievance procedures 	
Know how to obtain further information about employment issues Mapping to National Occupation	6.1. Know where to access information and advice concerning employment6.2. Describe the role of Trade Unions in the work place, supporting and advising employees	

General Textile Technology

Unit Reference	R/502/2264		
Level	3		
Credit Value	9		
Guided Learning (GL)	80 hours		
Unit Summary	The aim of this unit is to introduce learners to the textile industry and develop a broad based knowledge of the technical aspects of the major textile manufacturing processes. Assessment must be linked to the real work environment.		
Learning Outcomes	Assessment Criteria		
(1 to 9)	(1.1 to 9.1)		
The learner will:	The learner can:		
Know about global textile production and trends	 1.1. Identify the yarns and fabrics produced in the following areas North America South America Europe Asia Africa Pacific rim 1.2. Identify the main types of traditional textile production in the UK and the main regional centres for each type of production 		
2. Know about fibre types and their properties	 2.1. Identify the major types of natural and manufactured fibres 2.2. Identify the major fibre properties 2.3. For each fibre type identified in 2.1, analyse its physical and chemical properties and the factors affecting these 		

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3. Know about the general principles and production processes of fibre and yarn manufacture	 3.1. Identify the production methods used to produce natural and manufactured fibres 3.2. Explain the general principles of staple fibre yarn manufacture 3.3. Describe the manufacture of manufactured fibre yarns 3.4. Explain yarn count numbering 3.5. Explain yarn twist
4. Know about the post-yarn spinning process	 4.1. Describe the following post-yarn spinning processes yarn winding yarn twisting (doubling or plying) fancy yarn manufacture 4.2. Explain how yarns are prepared for fabric production
5. Know about the different processes of fabric production used in the textile industry	 5.1. Define and explain woven fabric structures weaving loom motions 5.2. Define and explain weft knitting 5.3. Define and explain warp knitting 5.4. Define and explain the principles of lace manufacture 5.5. Define and explain narrow fabrics Raschel-crochet weaving braided 5.6. Identify the manufacturing systems used to produce non woven structures and explain their end uses 5.7. Define and explain carpet production woven - Wilton and Axminster tufted bonded knitted

6. Know about finishing and dyeing processes	 6.1. Define and explain the following finishing processes for textiles wet finishing dry finishing chemical / functional finishes 6.2. Define and explain the following areas of dimensional stability methods used for setting fabrics dimensional stability 6.3. Define and explain the following areas of textile colouration dyehouse services dyeing techniques dyeing machinery printing
7. Know about garment production	7.1. Classify garment production • production sequencing and make-up
8. Know about technical textiles	8.1. Identify the major technical textiles and explain their uses
9. Know about basic production planning methods	 9.1. Identify the areas where to ensure effective production planning customer liaison planning systems

Managing Quality Standards – Textile Production

Unit Reference	K/650/2982
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	This unit will enable the learner to understand the functions that go into the quality control process. The work will cover the expected quality requirements, common causes of non-standard or reject work and appropriate remedial action that may be taken. Company procedures for quality monitoring and recording information and dealing with rejects. Also covered will be the importance of suitable ways of communicating with other employees over issues of quality. Assessment must be linked to the real work environment.
Learning Outcomes	Assessment Criteria
(1 to 4)	(1.1 to 4.2)
The learner will:	The learner can:
Understand the requirements of quality control systems	 1.1. Explain quality management systems and relevant procedures 1.2. Interpret and apply relevant Quality Standards 1.3. Explain a company's methods of monitoring product or process quality and taking corrective action
2. Know about quality testing	2.1. Explain the reasons for performing quality tests2.2. Identify standard test methods
3. Know how to perform quality tests	 3.1. Calibrate equipment for testing 3.2. Select appropriate textile products, prepare samples and perform the following tests safely fibre ID and regain tests fibre diameter and fibre length tests yarn tests – count, twist and strength fabric tests – fabric analysis tensile, pilling, abrasion, crease resistance and colour fastness tests

	3.3. Identify test methods for flammability3.4. Record and analyse test results
Understand the importance of ethical production and	4.1. Explain the organisation's policies on ethical production and sustainability
sustainability	4.2. Evaluate the effects of wastage on operations and sustainability

Fibre and Yarn Processing

Unit Reference	H/502/2267
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to expand the learner's knowledge and understanding of the techniques used in all stages of fibre preparation and methods of yarn production. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 5) The learner will:	Assessment Criteria (1.1 to 5.5) The learner can:
Understand the properties of a textile yarn	 1.1. Classify natural and manufactured textile yarn types, to include singles folded fancy yarns continuous filament 1.2. Identify the main characteristics of natural and manufactured fibres
Know about yarn production systems	 2.1. Explain the production systems for the staple fibre yarns listed below to include preliminary processes, cleaning of fibres, blending, carding, combing, preparation for spinning cotton worsted semi-worsted flax and jute silk speciality hair fibres 2.2. Describe fibre and yarn production for major manufactured fibres regenerated synthetic 2.3. Explain the reasons for blending fibres of the same type and those of different origin and type

3. Be able to identify and analyse faults	 3.1. Describe and explain fault finding principles 3.2. Describe sample analysis techniques used in the industry 3.3. Undertake tests on natural and manufactured fibre yarns for strength twist count 3.4. Examine the following yarns in a natural, manufactured fibre and blended fibre form to identify faults and provide explanations for the causes of each of them single folded
4. Understand the electrical and pneumatic requirements of machinery used in textile production	fancy 4.1. Identify machine components and explain their functions
5. Understand how to maintain machines used in textile production	 5.1. Identify and explain the type and use of the main lubricants and tools used to maintain machinery 5.2. Explain the planned maintenance processes for machinery 5.3. Analyse the advantages and disadvantages of these processes 5.4. Describe and explain machine fault finding principles and techniques 5.5. Select four machine faults and carry out a fault analysis safely

Weft Knitting

Unit Reference	M/502/2269
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to expand the learner's knowledge and understanding of weft knitting. Assessment must be linked to the real work environment.
Learning Outcomes	Assessment Criteria
(1 to 4)	(1.1 to 4.5)
The learner will:	The learner can:
Understand the principles and processes for weft knitting production	 1.1. Explain the manufacturing process and production cycle to include preparation of yarn for knitting basic knitting and control elements basic operating procedures basic knitting systems variations to basic knitting 1.2. Identify and explain the production sequences from yarn to finished product for fine gauge hosiery coarse gauge hosiery circular knitwear flat bed knitwear 1.3. Explain the yarn path from yarn supply to fabric take off for double jersey fabric machines fine gauge hosiery machines fine gauge hosiery machines flat bed knitwear machines 1.4. Explain factors influencing handling characteristics of materials during processing
2. Be able to identify and analyse faults	 2.1. Describe and explain fault finding principles 2.2. Describe sample analysis techniques used in the industry 2.3. Undertake tests on at least 2 natural and 2 manufactured yarns for strength

	 twist count 2.4. Analyse two weft knitted structures and for each produce fabric notations measure fabric parameters carry out calculations 2.5. Examine the following yarns in a natural, manufactured fibre and blended fibre form to identify faults and provide explanations for the causes of each of them single folded fancy
3. Understand the electrical and pneumatic requirements of machinery used in weft knitting	3.1. Identify machine components and explain their functions
4. Understand how to maintain weft knitting machines Mapping to National Occupation	 4.1. Identify and explain the type and use of the main lubricants and tools used to maintain machinery 4.2. Explain the planned maintenance processes for machinery 4.3. Analyse the advantages and disadvantages of these processes 4.4. Describe and explain machine fault finding principles and techniques 4.5. Select four machine faults and carry out a fault analysis safely

Warp Knitting and Lace

Unit Reference	H/502/2270
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to expand the learner's knowledge and understanding of warp knitting and lace production. Assessment must be linked to the real work environment
Learning Outcomes (1 to 4) The learner will:	Assessment Criteria (1.1 to 4.5) The learner can:
Understand the principles and processes of warp knitting production and lace manufacture	 1.1. Explain the manufacturing process and production cycle to include preparation of yarn for knitting basic knitting and control elements basic operating skills basic production systems variations to basic knitting 1.2. Identify and explain the production sequences from yarn to finished product for tricot warp knitting Raschel warp knitting Leavers lace 1.3. Explain the yarn path from yarn supply to fabric take off for tricot warp knitting machines Raschel warp knitting machines compound warp knitting machines leavers lace machines 1.4. Explain factors influencing handling characteristics of materials during processing 1.5. Describe how production resource requirements are calculated
Be able to identify and analyse faults	2.1. Describe and explain fault finding principles2.2. Describe sample analysis techniques used in the industry

	2.3. Undertake tests on at least 2 natural and 2
	manufactured yarns for • strength
	• twist
	• count
	Source
	 2.4. Analyse two weft knitted structures and for each produce fabric notations measure fabric parameters carry out calculations
	 2.5. Examine the following yarns in a natural, manufactured fibre and blended fibre form to identify faults and provide explanations for the causes of each of them single folded fancy
3. Understand the electrical and pneumatic requirements of machinery used in warp knitting and lace	3.1. Identify machine components and explain their functions
	4.1. Identify and explain the type and use of the main lubricants and tools used to maintain machinery
	4.2. Explain the planned maintenance processes for machinery
4. Understand how to maintain warp knitting machines	4.3. Analyse the advantages and disadvantages of these processes
	4.4. Describe and explain machine fault finding principles and techniques
	4.5. Select four machine faults and carry out a fault analysis safely
Manning to National Occupation	nal Ctandarde

Weaving

Unit Reference	K/502/2271
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to enable learners to expand their knowledge about weaving systems and processes. Assessment must be linked to the real work environment.
Learning Outcomes	Assessment Criteria
(1 to 4) The learner will:	(1.1 to 4.5) The learner can:
Understand the principles and processes of weaving	 1.1. Explain the manufacturing process and production cycle of woven fabrics to include preparation of yarn for weaving setting up to specification basic operating skills basic production systems variations to basic weaving 1.2. Explain machine capabilities and their characteristics 1.3. Describe the compatibility of machines and materials 1.4. Explain factors influencing handling characteristics of materials during production 1.5. Describe how production resource requirements are calculated
2. Be able to identify and analyse faults	 2.1. Describe and explain fault finding principles 2.2. Describe sample analysis techniques used in the industry 2.3. Undertake tests on natural and manufactured yarns for strength twist count

	 2.4. Examine the following yarns in a natural, manufactured fibre and blended fibre form to identify faults and provide explanations for the causes of each of them single folded fancy 2.5. Analyse two woven fabrics and for each produce fabric notations measure fabric parameters carry out calculations
Understand the electrical and pneumatic requirements of machinery used in weaving	3.1. Identify machine components and explain their functions
4. Understand how to maintain weaving machines	 4.1. Identify and explain the type and use of the main lubricants and tools used to maintain machinery 4.2. Explain the planned maintenance processes for machinery 4.3. Analyse the advantages and disadvantages of these processes 4.4. Describe and explain machine fault finding principles and techniques 4.5. Select four machine faults and carry out a fault analysis safely

Narrow Fabric Manufacture

Unit Reference	M/502/2272
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to expand the learner's knowledge and understanding about narrow fabric manufacture. Assessment must be linked to the real work environment.
Learning Outcomes	Assessment Criteria
(1 to 4) The learner will:	(1.1 to 4.5) The learner can:
Understand the principles and processes involved in narrow fabric manufacture	 Identify and explain the production sequences from yarn to finished product for woven narrow fabric Raschel-crochet knitted narrow fabric braided narrow fabric Explain machine capabilities and their characteristics Describe the compatibility of machines and materials Explain factors influencing handling characteristics of materials during production Describe how production resource requirements are calculated
2. Be able to identify and analyse faults	 2.1. Describe and explain fault finding principles 2.2. Describe sample analysis techniques used in the industry 2.3. Undertake tests on at least two natural and two manufactured yarns for strength twist count 2.4. Analyse two narrow fabrics and for each produce fabric notations measure fabric parameters

	carry out calculations
	 2.5. Examine the following yarns in a natural, manufactured fibre and blended fibre form to identify faults and provide explanations for the causes of each of them single folded fancy
3. Understand the electrical and pneumatic requirements of machinery used in the production of narrow fabrics	3.1. Identify machine components and explain their functions
4. Understand how to maintain machines used to produce narrow fabrics	 4.1. Identify and explain the type and use of the main lubricants and tools used to maintain machinery 4.2. Explain the planned maintenance processes for machinery 4.3. Analyse the advantages and disadvantages of these processes 4.4. Describe and explain machine fault finding principles and techniques 4.5. Select four machine faults and carry out a fault analysis safely

Carpet Manufacturing Processes

Unit Reference	A/502/2274
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to enable learners to gain a sound understanding of carpet manufacturing processes, systems and operations. Assessment must be linked to the real work environment
Learning Outcomes	Assessment Criteria
(1 to 4) The learner will:	(1.1 to 4.5) The learner can:
Understand the principles and processes involved in carpet manufacture	 1.1. Identify and explain the production sequences from yarn to finished product for Wilton woven carpet production Axminster woven carpet production tufted carpet production 1.2. Explain factors influencing handling characteristics of materials during production 1.3. Explain quality control procedures 1.4. Describe how production resource requirements are calculated
2. Be able to identify and analyse faults	 2.1. Describe and explain fault finding principles 2.2. Describe sample analysis techniques used in the industry 2.3. Undertake tests on at least two natural and two manufactured yarns for strength twist count 2.4. Examine the following yarns in a natural, manufactured fibre and blended fibre form to identify faults and provide explanations for the causes of each of them single folded fancy

	 2.5. Analyse two carpet structures and for each produce fabric notations measure fabric parameters carry out calculations
3. Understand the electrical and pneumatic requirements of machinery used in the production of carpets	3.1. Identify machine components and explain their functions
4. Understand how to maintain machines used to produce narrow fabrics	 4.1. Identify and explain the type and use of the main lubricants and tools used to maintain machinery 4.2. Explain the planned maintenance processes for machinery 4.3. Analyse the advantages and disadvantages of these processes 4.4. Describe and explain machine fault finding principles and techniques 4.5. Select four machine faults and carry out a fault analysis safely

Non Woven Fabric Production

Unit Reference	F/502/2275
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to expand the learner's knowledge and understanding of the processing and technological factors that affect non-woven fabric production, performance and manufacturing techniques. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 4) The learner will:	Assessment Criteria (1.1 to 4.5) The learner can:
Understand the principles and processes involved in producing non-wovens	 1.1. Identify the four main methods of non-woven fabric production and explain the advantages and disadvantages of each method 1.2. Explain the production processes from fibre/yarn to non-woven structure for the following needle punch non-wovens production hydro-entanglement non-wovens production stitch bonded non-wovens production thermal bonded non-wovens production 1.3. Explain factors influencing handling characteristics of materials during production
2. Be able to identify and analyse faults	 2.1. Describe and explain fault finding principles 2.2. Describe sample analysis techniques used in the industry 2.3. Undertake tests on natural and manufactured fibre yarns for strength twist count 2.4. Analyse a minimum of three non woven fabrics and for each produce fabric notations measure fabric parameters carry out calculations

3. Understand the electrical and pneumatic requirements of machinery used in the production of non-wovens	3.1. Identify machine components and explain their functions
	4.1. Identify and explain the type and use of the main lubricants and tools used to maintain machinery
	4.2. Explain the planned maintenance processes for machinery
4. Understand how to maintain machines used to produce non-wovens	4.3. Analyse the advantages and disadvantages of these processes
	4.4. Describe and explain machine fault finding principles and techniques
	4.5. Select four machine faults and carry out a fault analysis safely

Textiles Dyeing and Printing

Unit Reference	J/502/2276
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to expand the learner's knowledge and understanding about textile colouration. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 6) The learner will:	Assessment Criteria (1.1 to 6.5) The learner can:
Understand the principles and processes involved in the textile colouration processes	 1.1. Explain the basic principles of dyeing, including after-treatments where applicable for two natural and two manufactured fibres 1.2. Explain the processing sequences from substrate preparation to dyed textiles products for the following winch dyeing jig dyeing pad-steam dyeing cone yarn dyeing hank dyeing fibre dyeing 1.3. Create recipes and carry out dyeing for two textile products made of different fibre types
2. Understand the principles and processes involved in textile printing processes	 2.1. Explain the processes and methods involved in printing 2.2. Explain the processing sequences from substrate preparation to printed textiles products for the following rotary screen printing transfer printing block printing roller printing digital printing 2.3. Create recipes and carry out printing for two textile products made of different fibre types

3. Understand how to prevent faults when printing and dyeing textiles	 3.1. Identify and explain dyeing and printing faults in fabric fibres garment hosiery 3.2. Explain how to prevent dyeing and printing faults
4. Understand environmental issues when dyeing and printing textiles	 4.1. Outline the possible environmental contamination that may occur from dyeing and printing textiles 4.2. Identify the current legislation designed to protect the environment from contamination from these processes and analyse what this means for the industry
5. Understand the electrical and pneumatic requirements of machinery used in dyeing and printing	5.1. Identify machine components and explain their functions
6. Understand how to maintain machines used in dyeing and printing	 6.1. Identify and explain the type and use of the main lubricants and tools used to maintain machinery 6.2. Explain the planned maintenance processes for machinery 6.3. Analyse the advantages and disadvantages of these processes 6.4. Describe and explain machine fault finding principles and techniques 6.5. Select four machine faults and carry out a fault analysis safely

Textile Finishing

Unit Reference	R/502/2278
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to expand the learner's knowledge and understanding about textile finishing. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 5) The learner will:	Assessment Criteria (1.1 to 5.5) The learner can:
. Understand the principles and processes involved in textile finishing	 1.1. Describe the following preparatory processes to finishing and explain their purposes perching measuring; weighing and numbering fabric burling and mending 1.2. Explain the production cycles and purposes of the following finishing processes crabbing scouring hydro-extracting milling blowing decatising potting stentering and heat setting raising cropping 1.3. Explain the processing sequences from substrate preparation to finished textile products for the following dry / mechanical finishing wet / chemical finishing
	 1.4. Explain the path for materials to be finished from feeder source to finished textile products for the following wet processing including proofing, softening, resin treatments dry processes including raising, cropping, singeing, calandering

	 1.5. Select and justify the most appropriate finishes for the following textile products woven woollen fabric woven cotton fabric cotton yarn polyester warp knitted weft knitted product
2. Understand how to prevent faults when carrying out textile finishing processes	 2.1. Identify and explain finishing faults in woven products knitted products non-woven products 2.2. Explain how to prevent faults in textile finishing processes
3. Understand environmental issues when carrying out textile finishing processes	3.1. Outline the possible environmental contamination that may occur from textile finishing processes3.2. Identify the current legislation designed to protect the environment from contamination from these processes and analyse what this means for the industry
4. Understand the electrical and pneumatic requirements of machinery used in textile finishing processes	4.1. Identify machine components and explain their functions
5. Understand how to maintain machines used in textile finishing processes	 5.1. Identify and explain the type and use of the main lubricants and tools used to maintain machinery 5.2. Explain the planned maintenance processes for machinery 5.3. Analyse the advantages and disadvantages of these processes 5.4. Describe and explain machine fault finding principles and techniques 5.5. Select four machine faults and carry out a fault analysis safely

Knitted Fabric Design

Unit Reference	Y/502/2279
Onit Reference	1/502/22/9
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to expand the learner's knowledge and understanding of warp and weft knitted fabric design. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 5) The learner will:	Assessment Criteria (1.1 to 5.2) The learner can:
1. Understand the process of knitted fabric design and development from initial idea to finished product	 1.1. Analyse the trends and influences impacting on design development 1.2. Describe the different types of design repeat and their application 1.3. Explain the processes of design from initial idea to finished product to include research interpretation of design brief customer requirements costings design specification sample requirements sample production production specification
2. Understand the principles of technical drafting	 2.1. Explain the principles of technical drafting for each of the following weft knitting warp knitting lace 2.2. Draw a technical draft for two designs to be knitted on two different types of machine
3. Be able to use CAD techniques in knitted fabric design processes	3.1. Describe CAD-Computer Aided Design techniques and processes

	3.2. Produce a design for a knitted fabric using CAD- Computer Aided Design
4. Understand fabric analysis techniques	 4.1. Describe sample analysis techniques for fibre type yarn type and count type of fabric 4.2. Analyse two knitted fabrics of different construction and for each of the following produce fabric notations measure fabric parameters carry out calculations
5. Understand the processes involved in lace, weft and warp knitting production	 5.1. Explain the production sequences from yarn supply to fabric take-off for the following tricot warp knit fabrics Raschel warp knit fabrics leavers lace circular weft knit fabrics flat weft knit fabrics 5.2. Identify the types of faults which can occur in yarns machines fabrics and explain what causes them

Woven Fabric Design

Unit Reference	R/502/2281
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to expand the learner's knowledge and understanding about the technical aspects of design. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 5) The learner will:	Assessment Criteria (1.1 to 5.3) The learner can:
Understand the process of woven fabric design and development from initial idea to finished product	 1.1. Analyse the factors impacting on design development 1.2. Describe the different types of repeat and their application 1.3. Explain the processes of design from initial idea to finished product to include research interpretation of design brief customer requirements costings design specification, sample requirements sample production production specification
2. Understand the principles of technical drafting	 2.1. Explain the principles of technical drafting for each of the following plain fabric twill satin and sateen weaves 2.2. Draw a technical draft for two designs to be woven on two different types of machine
3. Be able to use CAD techniques in woven fabric design processes	3.1. Describe CAD-Computer Aided Design techniques and processes3.2. Produce a design for a woven fabric using CAD-Computer Aided Design

4. Understand fabric analysis techniques	 4.1. Describe sample analysis techniques for fibre type yarn type and count type of fabric 4.2. Analyse two woven fabrics of different construction and for each of the following produce fabric notations measure fabric parameters carry out calculations
5. Understand the principles and processes of weaving	 5.1. Describe the primary motions of weaving 5.2. Explain the manufacturing processes and production cycle of woven fabrics 5.3. Explain factors influencing handling characteristics of materials during processing

Knitwear and Hosiery Design and Make-up

Unit Reference	Y/502/2282
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to expand the learner's knowledge and understanding of the technical skills and procedures required when designing knitwear and of the processes involved in the making up of knitwear, tights and socks including the operation of machines. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 3)	Assessment Criteria (1.1 to 3.3)
The learner will:	The learner can:
Understand the process of design for knitwear and hosiery	 1.1. Analyse the factors and processes involved in design development for knitwear and hosiery 1.2. Explain how to research trends and develop design images 1.3. Explain the steps involved in producing a prototype design and evaluating it 1.4. Describe the components of a product specification
2. Understand the principles and processes of developing knitted products	 2.1. Describe the process of developing knitted garments and products 2.2. Describe the processes involved in knitwear design development 2.3. Explain and demonstrate the use of CAD – Computer Aided Design in the knitwear and hosiery design process 2.4. Analyse two knitted fabrics of different construction and for each produce fabric notations measure fabric parameters carry out calculations

- 3.1. Describe product / garment production sequences for the following
 - fully fashioned / shaped knitwear
 - cut and sew knitwear
 - whole garment knitting
 - dress wear from piece goods knitted fabric
 - underwear
 - fine gauge hosiery
 - coarse gauge hosiery
 - socks
- 3.2. Describe knitting machine capabilities, characteristics and mechanisms
- 3.3. Produce calculations and costings for two knitted products

3. Understand the processes

involved in knitwear and

knitted product manufacture

Textile Testing

Unit Reference	D/502/2283
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to expand the learner's knowledge and understanding about textile testing. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 3) The learner will:	Assessment Criteria (1.1 to 3.6) The learner can:
Understand the principles and methods of textile testing	 1.1. Describe basic procedures for textile testing 1.2. Explain the different systems for calculating and presenting test results 1.3. Identify the tests required for four products 1.4. Prepare samples and carry out tests on them 1.5. Record and validate the data produced from the tests 1.6. Carry out calculations
Understand the procedures for calibrating testing equipment	 2.1. Explain the procedures and routines for calibrating equipment 2.2. Describe the methods of calibration for three types of testing equipment 2.3. Carry out calibration procedures on two pieces of testing equipment complying with health and safety requirements 2.4. Maintain records of calibration activities
Understand how to maintain equipment	3.1. Identify and explain the type and use of the main lubricants and tools used to maintain equipment

- 3.2. Explain the planned maintenance processes for equipment
- 3.3. Analyse the advantages and disadvantages of these processes
- 3.4. Produce a checklist for a planned equipment maintenance routine
- 3.5. Describe and explain fault finding principles and techniques
- 3.6. Select a minimum of four equipment faults in testing equipment. Identify the causes and carry out methods of rectification safely

Managing Own Relationships within Textile Production

Unit Reference	M/502/6399
Level	3
Credit Value	9
Guided Learning (GL)	60 hours
Unit Summary	This unit will enable the learner to develop skills in managing their own time in the workplace. It will assist the learner to understand and deal with their peer group and managers above their own level of responsibility. They will explore the positive aspects of the role an individual and manager can play within a team. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 6)	Assessment Criteria (1.1 to 6.1)
The learner will:	The learner can:
Understand how to communicate with their colleagues within the workplace	 1.1. Demonstrate the benefits of effective communication in the workplace, which may include verbal non-verbal internal media external media
Be able to minimise disruption in the workplace and deal with any problems	2.1. Discuss and deal with problems as they arise to minimise disruption in the workplace
3. Understand the role of an individual in fulfilling the aims of an organisation	3.1. Provide evidence of workplace organisation that demonstrates their own responsibility for maintaining health, safe and productive work conditions that comply with company procedures
4. Be able to undertake professional self-development	4.1. Provide examples of own CPD and action plan to achieve objectives4.2. Discuss and verify action plan with a senior manager
5. Be able to make decisions, manage their objectives and activities efficiently	5.1. Produce a document detailing a typical working week, to show evidence of effective time management. This may include reference to

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	 agreeing and prioritising own objectives planning own time decision making rescheduling own activities as appropriate
6. Be able to manage their resources in the workplace	6.1. Manage and maintain their resources in the workplace

Leading Teams within Textile Technologies

Unit Reference	A/502/2291
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to develop potential team leaders' underpinning knowledge of effective team leading methods and practices. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 3) The learner will:	Assessment Criteria (1.1 to 3.4) The learner can:
Understand the team leadership role	1.1. Explain the role of the team leader1.2. Analyse the characteristics of different leadership styles and approaches1.3. Analyse effective team leader communication procedures
Understand the importance and principles of team development	2.1. Explain the importance of team development for the business and the individual2.2. Evaluate the monitoring systems used in a chosen organisation to enhance team and individual performance
3. Understand the role of meetings within an organisation	 3.1. Analyse the types of meetings that a textile company holds, looking at their purpose whether formal or informal the types of papers are produced the effectiveness of the meetings 3.2. Evaluate the communication strategies needed by a chairperson to achieve the meeting's objectives 3.3. Plan and conduct a production meeting 3.4. Review the effectiveness of the meeting in relation to its objectives achieved

Aspects of Design within the Textile Industry

Unit Reference	Y/502/6400
Level	3
Credit Value	7
Guided Learning (GL)	40 hours
Unit Summary	This unit covers the various stages in the design process. Learners will learn how mood boards, market research and customer profiling can be used to help develop designs. They will also learn how to communicate their ideas through a variety of drawing and other techniques, and will have the opportunity to develop a number of designs based on the analysis of their own research. Assessment must be linked to the real work environment.
Learning Outcomes	Assessment Criteria
(1 to 3) The learner will:	(1.1 to 3.2) The learner can:
Understand the sector market and how trends are predicted	 1.1. Demonstrate how to predict trends of the sector's market, including seasonal trends design functions
Be able to communicate ideas and technical information through different media	 2.1. Use different media to communicate ideas and technical information, including a research sketch book mood/story boards design development sheets information technology
3. Be able to select and use a wide range of media to produce a range of fashion illustrations	3.1. Present final designs, includingpresentation drawingsworking drawings

Mapping to National Occupational Standards

Professional Practice / Preparation for Employment within the Textile Industry

Unit Reference	D/502/6401
Level	3
Credit Value	7
Guided Learning (GL)	40 hours
Unit Summary	This unit is designed to help prepare learners for a role within the textile industry. The work will cover current professional practices and the uses of computer-based technology to produce high quality paper based personal presentations. The work will cover the production of detailed reports and the methods used to present oneself in a business situation. Assessment must be linked to the real work environment.
Learning Outcomes	Assessment Criteria
(1 to 3) The learner will:	(1.1 to 3.1) The learner can:
Understand the workings of a company specific to the sector the learner is working/intends to work in	1.1. Produce a report giving an overview of their chosen company
Be able to produce a report to meet a specific task	 2.1. Produce a report which details an item of professional practice in the specific area of expertise investigated by the learner includes any suggested opportunities for improvement which could be made
3. Be able to produce business contextualised paperwork, giving information about oneself	 3.1. Produce a range of paper based items to be used in a business context, including computer generated CV business card letter of application for a real of fictional position

Mapping to National Occupational Standards

Buying Including Import/Export within the Textile Industry

Unit Reference	H/502/6402
Level	3
Credit Value	9
Guided Learning (GL)	60 hours
Unit Summary	This unit will enable the learner to understand the principles of buying external goods and services particularly related to outsourced products and production. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 6) The learner will:	Assessment Criteria (1.1 to 6.1) The learner can:
Understand cost principles and its application to the textile industry	1.1. Define cost principles and its application to textile manufacture
Know how to research outsourced manufacturing capabilities using various methods	2.1. Identify methods of finding outsourced manufacturing capabilities
3. Be able to evaluate the costs and logistics of outsourced production	3.1. Demonstrate how to outsource a product as if it were being outsourced to another country for manufacture
4. Know about social and cultural diversity of differing locations	4.1. Identify the cultural issues that could surround the manufacturing of the product in this country
5. Understand the legal requirements of importing and exporting products	5.1. Describe the legal requirements ofimporting productsexporting products
6. Know how to maintain quality control procedures for outsourced products and services	6.1. Describe how to maintain quality control procedures for outsourced products and services

Mapping to National Occupational Standards

Manage Information for Action within the Textile Industry

Unit Reference	K/502/6403
Level	3
Credit Value	8
Guided Learning (GL)	50 hours
Unit Summary	This unit will enable the learner to understand the efficient management of information within a given area of responsibility. It covers the gathering of information needed, providing information needed by a team leader, advice to others and the holding of meetings. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 3)	Assessment Criteria (1.1 to 3.3)
The learner will:	The learner can:
Understand the importance to a team leader of gathering all types of valid information	 1.1. For a given situation, detail the information that would need to be gathered before any action is taken. This should include the location type validity any problems envisaged in obtaining the documentation
2. Understand the importance of effectively communicating the types of information and advice which other people may require	2.1. Demonstrate to employees the principles involved in effective communication to be used in a workplace (shop-floor or office)
3. Understand the factors to be considered when organising, leading and recording the outcomes of meetings	 3.1. Set up, organise and chair a meeting 3.2. Produce details of the meeting, including notice of meeting agenda minutes actions 3.3. Produce a critical self-appraisal as to the choice of the leadership style used and the effectiveness of the meeting

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Planning for Textile Production

Unit Reference	F/502/2292
Level	3
Credit Value	7
Guided Learning (GL)	60 hours
Unit Summary	The aim of this unit is to expand the learner's knowledge and understanding of the production planning process. Assessment must be linked to the real work environment.
Learning Outcomes (1 to 3)	Assessment Criteria (1.1 to 3.4)
The learner will:	The learner can:
	1.1. Explain the importance of specifications and scheduling
Understand the principles and	1.2. Describe the principles of production planning
functions of production planning	1.3. Explain the processes involved in production planning
	1.4. Develop a specification to cover customer and production requirements
	2.1. Describe the process of carrying out production planning calculations
2. Understand the resource	2.2. Calculate the machine capacity for a given textile machine
requirements of production planning	2.3. Evaluate the advantages and disadvantages of JIT, KANBAN and OPT
	2.4. Produce a production plan for a given textile product / order
3. Understand the management systems required for production planning	3.1. Identify the production planning systems used in textile companies
	3.2. Assess the advantages and disadvantages of the various production systems
	3.3. Identify any potential problems that can occur in planning and the possible solutions

3.4. Identify the financial implications involved in production planning and the control systems needed

Mapping to National Occupational Standards

Recognition of Prior Learning (RPL), Exemptions, Credit Transfers and Equivalencies

Skills and Education Group Awards policy enables learners to avoid duplication of learning and assessment in a number of ways:

- Recognition of Prior Learning (RPL) a method of assessment that considers whether a learner can demonstrate that they can meet the assessment requirements for a unit through knowledge, understanding or skills they already possess and do not need to develop through a course of learning.
- Exemption Exemption applies to any certificated achievement which is deemed to be
 of equivalent value to a unit within a Skills and Education Group Awards qualification
 but which does not necessarily share the exact learning outcomes and assessment
 criteria. It is the assessor's responsibility, in conjunction with the Internal Moderator,
 to map this previous achievement against the assessment requirements of the Skills
 and Education Group Awards qualification to be achieved in order to determine its
 equivalence.

Any queries about the relevance of any certificated evidence, should be referred in the first instance to your centre's internal moderator and then to Skills and Education Group Awards.

It is important to note that there may be restrictions upon a learner's ability to claim exemption or credit transfer which will be dependent upon the currency of the unit/qualification and a learner's existing levels of skill or knowledge. Where past certification only provides evidence that could be considered for exemption of part of a unit, learners must be able to offer additional evidence of previous or recent learning to supplement their evidence of achievement.

- Credit Transfer Skills and Education Group Awards may attach credit to a
 qualification, a unit or a component. Credit transfer is the process of using certificated
 credits achieved in one qualification and transferring that achievement as a valid
 contribution to the award of another qualification. Units/Components transferred must
 share the same learning outcomes and assessment criteria along with the same unit
 number. Assessors must ensure that they review and verify the evidence through sight
 of:
 - o original certificates OR
 - copies of certificates that have been signed and dated by the internal moderator confirming the photocopy is a real copy and make these available for scrutiny by the External Moderator
- Equivalencies opportunities to count credits from the unit(s) from other qualifications or from unit(s) submitted by other recognised organisations towards the place of mandatory or optional unit(s) specified in the rule of combination. The unit must have the same credit value or greater than the unit(s) in question and be at the same level or higher.

Skills and Education Group Awards encourages its centres to recognise the previous achievements of learners through Recognition of Prior Learning (RPL), Exemption, Credit Transfer and Equivalencies. Prior achievements may have resulted from past or present employment, previous study or voluntary activities. Centres should provide advice and

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guidance to the learner on what is appropriate evidence and present that evidence to the external moderator in the usual way.

Further guidance can be found in 'Delivering and Assessing Qualifications' which can be downloaded from the website.

Exemptions

There are no identified exemptions for these qualifications.

Equivalencies

There are no identified equivalencies for these qualifications.

Certification

Learners will be certificated for all units and qualifications that are achieved and claimed.

Skills and Education Group Awards policies and procedures are available on the website.

Glossary of Terms

GL (Guided Learning)

GLH is where the learner participates in education or training under the immediate guidance or supervision of a tutor (or other appropriate provider of education or training). It may be helpful to think – 'Would I need to plan for a member of staff to be present to give guidance or supervision?'

GLH is calculated at qualification level and not unit/component level.

Examples of Guided Learning include:

- Face-to-face meeting with a tutor
- Telephone conversation with a tutor
- Instant messaging with a tutor
- Taking part in a live webinar
- Classroom-based instruction
- Supervised work
- Taking part in a supervised or invigilated assessment
- The learner is being observed.

TQT (Total Qualification Time)

'The number of notional hours which represents an estimate of the total amount of time that could reasonably be expected to be required, in order for a learner to achieve and demonstrate the achievement of the level of attainment necessary for the award of a qualification.' The size of a qualification is determined by the TQT.

TQT is made up of the Guided Learning Hours (GLH) plus all other time taken in preparation, study or any other form of participation in education or training but not under the direct supervision of a lecturer, supervisor or tutor.

TQT is calculated at qualification level and not unit/component level.

Examples of unsupervised activities that could contribute to TQT include:

- Researching a topic and writing a report
- Watching an instructional online video at home/e-learning
- Watching a recorded webinar
- Compiling a portfolio in preparation for assessment
- Completing an unsupervised practical activity or work
- Rehearsing a presentation away from the classroom
- Practising skills unsupervised
- Requesting guidance via email will not guarantee an immediate response.