

Unit 85: Exploring Specialist Techniques

Unit code:	J/502/5744
QCF Level 3:	BTEC National
Credit value:	10
Guided learning hours:	60

● Aim and purpose

The aim of this unit is for learners to explore the features of their chosen specialist field in art, craft and design by investigating the associated materials, techniques and processes.

● Unit introduction

Practitioners in the fields of art, craft and design continually evaluate their application of materials and techniques and adopt working practices that are in line with the features and requirements of their area. The work they produce has to address the challenges of set briefs, but also has to allow the creative development of personal themes and ideas. Over time, practitioners build a personal language of using materials and making techniques which is unique to them in order to produce work that is distinctive with a clear personal identity. This makes their work identifiable to other artists, makers or designers, and to their audience, which establishes criteria by which their work is appreciated.

In this unit learners will research and explore the visual and physical characteristics of their chosen specialist field through practical investigations of materials and techniques and by the production of tests, samples, maquettes and prototypes. Experimental and innovative approaches to using materials, techniques and processes are encouraged. This will help learners understand how and why particular techniques are used in a range of specialist areas and contexts. As learners' knowledge in these areas grows, so too should their understanding of their own emerging working personality.

Personal recording of this information is essential for learners to use and refer back to future work. A sketchbook/journal is to be used to record the investigations, observations and discoveries that learners make on the various properties, and how practitioners have used these. Evidence can include photographs, drawings and notes.

Throughout this unit, learners will need full health and safety induction into the practice of working in a specialist environment and be shown the correct use of materials, tools and equipment.

From their broad exposure to art, craft and design activities, learners will identify their chosen direction and potential specialist field. This unit will build on prior experiences and provide the opportunity to explore a particular area in greater depth and detail. It can act as a supporting unit for *Unit 86: Extending Specialist Techniques* when learners apply the skills and understanding gained in this unit to develop, realise and evaluate design outcomes in their chosen specialist field. The two units can be delivered in sequence or through an integrated programme of study.

● Learning outcomes

On completion of this unit a learner should:

- 1 Understand the characteristics of the specialist field
- 2 Be able to investigate specialist materials and techniques
- 3 Be able to record investigations about the properties of specialist materials and techniques.

Unit content

1 Understand the characteristics of the specialist field

Specialist field: eg sculpture, printmaking, ceramics, glass, wood working, metal working, jewellery, textiles, mixed media and digital art; specialist practice eg historical, contemporary, influences; specialists eg artists, designers, craftspeople

Characteristics: working processes eg workshops, materials, approaches, planning, features, design, tools, handling, processes, machinery, equipment, potential, limitations, finishing, presentation

2 Be able to investigate specialist materials and techniques

Investigate: enquiry eg investigation, identify, experimentation; planned sequence, research tasks; relevant information; potential, chosen specialist field

Materials and techniques: preparation; use materials eg relevant materials, test, potential, machinery, equipment; use techniques eg relevant tools, generate ideas, unrestricted exploration; constraints eg workability, brittleness, density, weight, strength; produce eg samples, tests, prototypes, structures, processes, finishes

Health and safety: follow health and safety procedures for specialist studios, workshops and when using specialist tools, machinery, equipment and materials; know about risks associated with specific tasks, working safely to eliminate risk to self and others; understand risk assessments; follow COSHH guidance on materials and workshop practice

3 Be able to record investigations about the properties of specialist materials and techniques

Record: findings, appropriate forms eg notes, reports, drawings, samples and photographs, for future use; collate eg sketchbook, note book, journal, digital records; linking eg with other specialist work, examples, sharing findings

Properties: working methods, specialist materials, techniques, technical information, transformation, manipulation, aesthetic qualities, potential application, future outcomes

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 review the characteristics of the chosen specialist field [RL]	M1 compare the characteristics of specialist materials and techniques within the chosen specialist field	D1 analyse the characteristics of specialist materials and techniques within the chosen specialist field through informed, practical research
P2 investigate examples of practitioners' works	M2 apply findings from investigations on specialist materials and techniques to own work.	D2 use findings from investigations on specialist materials and techniques independently and innovatively to develop own work.
P3 explore the potential of specialist materials and techniques safely [IE, SM, TW]		
P4 produce records of technical information about specialist materials and techniques. [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	RL – reflective learners	SM – self-managers
	CT – creative thinkers	TW – team workers	EP – effective participators

Essential guidance for tutors

Delivery

Learners should have access to appropriate resources to provide background information about their chosen specialist field of art, craft and design. This will include library and internet resources to research practitioners' works and studio and workshop facilities to support learners' explorations of specialist materials and techniques. Delivery will consist mainly of demonstrations and monitoring learners' practical work.

This unit should act as a supporting unit for *Extending Specialist Techniques* by providing learners with background information about their chosen specialist field of art, craft and design and should include the preparatory stages of a set theme or brief. The two units can be delivered in sequence or through an integrated programme of study.

Learning outcome 1 can be delivered through learners identifying and researching their chosen specialist fields of art, craft and design. Learner choice should be clarified through one-to-one diagnostic tutorials, taking into account work already produced on the course and their personal preferences for materials and approaches. For this reason, it is envisaged that this unit will be introduced in the second half of the course. In their research, learners should ask the question, 'how and why are particular techniques used in my specialist area?' This could include visits to view works directly. Learner investigations should be carefully recorded.

Most of the work for this unit will be exploratory and practical work for learning outcome 2 should be experimental and underpinned by research. The focus should be on learners investigating specialist materials and making and finishing techniques in particular. Learners will require access to specialist studios or workshops and tools and equipment and will need supervision to conduct their investigations. Tutors should demonstrate prescribed methods and processes, where appropriate, followed by close monitoring of learner activities and discussions about the processes and results. Tutors must also ensure that health and safety regulations are followed and understood. Rather than producing finished outcomes, learners will explore specialist materials and techniques through the production of tests, samples, trial pieces, maquettes or small prototypes. Learners should be encouraged to experiment broadly, to make discoveries and to use research to inform their explorations. Ongoing research on artists' works, from books, journals, the internet and visits to galleries and museums, will confirm the value of these activities. As learner investigations progress, their understanding of specific materials and techniques should grow and inform possible design ideas. When researching others' works, learners should ask the question 'how are the same materials and techniques used by professionals?' Visits to practitioners working in the same field would be an opportunity for learners to make direct links between professionals and their own emerging practice. In this way, they may be able to reach judgements that the link features and requirements of their chosen field with the use of specific materials and techniques in their own work.

Tutors should deliver learning outcomes 1 and 2 as a holistic experience, as the information required to achieve the learning outcomes may come from the same or similar sources. This information can then be used to inform learning outcome 3.

Learning outcome 3 involves learners recording their explorations and findings. Regular reviews should take place, either as a group activity or individually, at the end of each working session to consolidate understanding or at the start of the following session as a revision. Learners will need to record their investigations by making notes or annotating photographs of their activities, discoveries and results. They will need to include technical information about what happens to the materials during different stages, describe techniques, tools and equipment used and the resulting visual qualities. Their visual examples of artists' works will need to be recorded here, drawing attention to the links with their own observations, results and findings. The collated records should provide personal information for future reference when developing and realising ideas.

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/activities and/assessment
Introduction to unit.
Assignment 1: Identifying a Specialist Field <ul style="list-style-type: none">• Individual diagnostic tutorials to review and discuss strengths and weaknesses, personal interests and preferences for approaches, materials, processes and outcomes.• Learners identify direction and potential specialist field.
<ul style="list-style-type: none">• Working from self-initiated visual studies produced for a set theme, learners produce a series of studies, tests, samples or models, as appropriate to the specialist field, to explore shapes, forms and surfaces, using traditional materials and techniques and to practise particular skills.• Review and record methods, processes and results of investigations including technical successes or failures, different uses of materials, how materials respond to different treatments, joining methods.
<ul style="list-style-type: none">• Research and record works of practitioners from the past and present, from secondary sources to identify the materials and techniques used in their work and how they have been applied.
Assignment 2: Beginning to Develop Own Work in a Specialist Field <ul style="list-style-type: none">• Visit galleries/museums to study and record observations of works by artists from the past and present, from direct observation.
<ul style="list-style-type: none">• Produce further self-initiated investigations, referring to contextual research and traditional processes, but extending to alternative, experimental explorations, within constraints of health and safety considerations and resources.• Review and record results.
<ul style="list-style-type: none">• Preparatory work, with preferred range of materials and techniques, for final outcomes in response to a theme.
Review of unit and assessment.

Assessment

Learners explaining to a group features and requirements of their specialist field, illustrated with examples of artists' works from that field, will evidence learning outcome 1. Learner attention should be focused on how materials and techniques have been used to create particular outcomes. They should also explain the investigations they carried out and their findings. This all should be recorded in an annotated personal reference book for verification purposes. In this way, the three learning outcomes are interrelated; understanding develops from the research and investigations, which are recorded for future reference.

For learning outcome 2, learners must carry out practical exploratory on about materials and techniques in their specialist field. They can investigate traditional and established uses of materials and techniques, be highly original and experimental utilising trial and error approaches and explore artists' use materials and processes. Outcomes can include drawings, models, samples, test pieces, maquettes and prototypes. Practical sessions will be supervised and observed by tutors, who will record how learners conduct the investigations, use materials and tools appropriately and follow prescribed sequence of activities and work safely.

For learning outcome 3, learners must present an annotated sketchbook and or similar, which is clearly organised and contains research about the specialist field. All practical investigations must be documented with explanatory notes or photographic records about how they were conducted and the technical and visual results. Tutors will check that this includes examples of practitioners' works with related notes about the materials and techniques used and visual qualities achieved.

To achieve P1, learners must be able to identify and explain the main features and requirements of their specialist field. This can be done orally at a group critique, to the tutor or through written and visual evidence. There will be some enquiry into specific features and characteristics, but the identified range will be limited. There will be some explanation about how materials and techniques can be used to produce particular outcomes and visual qualities, but these will be limited and some of the judgements reached may be tutor led.

For P2, practitioners' works will be selected appropriately to provide examples from the specialist field, but the information researched will be limited to obvious observations. The selection of works and information will not be consistently relevant.

For P3, learners must show basic practical skills in conducting investigations and they must use materials and techniques safely and appropriately. They must follow procedures and sequences correctly. Explorations with materials will show a basic level of skills and understanding. Learners will be able to identify the potential application of materials, techniques and processes in a limited and obvious way, unless directed by the tutor. Judgements reached will be expressed using limited visual and critical analysis. Tutor observations of working practices will form the main assessment method of this stage.

For P4, learners must present records of their research and practical investigations. These must include technical information about materials, techniques and processes, their methods of working and how results were achieved. They must also comment on the visual qualities their investigations have revealed, but these will be limited and obvious. The appraisal of learners' tests will be limited. There will be recording, which could be used as reference for future work, but the information will be basic. Links with practitioners' works will be minimal. Language used in notes/annotations will be basic.

For M1, learners will evidence their understanding of the features and requirements of the chosen specialist field by selecting diverse works, historical and contemporary, to inform the materials, techniques and processes used. They will also note observations about the visual qualities. They will use specific examples to compare the similarities and differences between the works, and how these were achieved, expanding information to evidence greater understanding at this level.

For M2, learners will work purposefully and consistently organise themselves, prepare materials, tools and equipment before starting, and record regularly. They will show competent practical skills when manipulating and exploring materials and techniques. Research will be used to investigate different approaches in their own work, but there will be caution about exploring unusual methods. They will be willing to consult the tutor to clarify activities, to ensure understanding and regularly take stock and review methods and results.

Observations about the properties of materials and techniques will be thought through and potential for future application will be identified. Learners will show clear understanding and skill in applying critical and visual analysis. They will consistently show direct links between their investigations and the works of others. Annotations will include thoughts about aesthetic considerations. The information will be clearly organised with reflection given to the layout and design of the reference book.

For D1, learners must show a strong understanding of the qualities of materials and the relevance of the techniques used to achieve particular results in the specialist field. They will analyse works by practitioners to inform their understanding of the specialist field and how professionals manipulate materials, techniques and processes to develop an individual visual language.

For D2, learners will demonstrate how information has been used to inform further theoretical and practical enquiries. Investigations will be thorough and experimental, taking risks to make discoveries, but within understood parameters. Learners will use analysis of research and own observations to identify potential applications in their own work, recognising potential in unexpected results. Recording will be thorough and expanded information will detail reasons for identified qualities.

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
P1, P2, M1, D1	Assignment 1: Identifying a Specialist Field	Artist, designer or craftsperson researching a new specialist field.	<p>Presentation at group critique.</p> <p>Learners explain the features and requirements of the chosen specialist field, illustrated by selected works of art.</p> <p>Tutor gives written feedback about the quality and depth of research, level of understanding and areas for improvement.</p>
P3, P4, M2, D2	Assignment 2: Beginning to Develop Own Work in a Specialist Field	Artist, designer or craftsperson developing new work in a specialist field.	<p>Continuous tutor monitoring and observation of practical work.</p> <p>Regular tutor/learner reviews of explorations.</p> <p>Presentation at group critique.</p> <p>Learners present and explain their investigations.</p> <p>Tutor gives written feedback about the quality of practical work and explorations, including safe working practice and areas for improvement.</p>

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 unit titles in the BTEC Art and Design suite:

Level 1	Level 2	Level 3
Creative Use of Materials, Techniques and Processes	2D Visual Communication	Extending Specialist Techniques
Explore 3D Design Crafts	Working with Textile Briefs	Exploring Resistant Materials
Introduction to Dyed Textiles	Working with 3D Design Briefs	Exploring Non-resistant Materials
Introduction to Multimedia Production	Working with Interactive Media Briefs	Exploring Specialist Textile Techniques
	Working with Visual Arts Briefs	

National Occupational Standards

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

CCSkills Sector Skills Council

Design (revisions in draft form June 2009)

- DES1 Apply research on the history and theory of design to your own design activities
- DES2 Apply design industry knowledge to inform your own design work practice and work
- DES7 Contribute to the production of prototypes, models, mock-ups, samples or test pieces
- DES9 Research, test and apply techniques for the design of products
- DES1 I Provide written information in relation to your design work.

Essential resources

The resources required will vary according to the specialisms chosen by learners.

Research resources include access to technical resources, a library, a slide index, journals and IT facilities with internet access, as well as specialist workshops for working with relevant materials, tools and equipment.

Employer engagement and vocational contexts

Centres should develop links with local practitioners who use specialist materials and techniques in workshops and studios to produce of own work, commission, or in response to projects. Organised visits to these working environments would provide understanding of how practitioners use and organise materials, tools and equipment.

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 delivery of the programme in terms of work experience and future employment.

Vocational learning support resource include:

- 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' to support the vocational content of the unit and programme.

Creative & 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.

Skillset, the sector skills council for creative media (www.skillset.org), provide details (www.skillset.org/careers) about careers advice and industry information, plus a regularly updated news and events page.

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

Indicative reading for learners

Specialist books and publications will depend on learners' choice of pathways in art, craft and design.

Textbooks

Bosworth J – *Ceramics with Mixed Media* (A&C Black, 2006) ISBN 978-0713667714

Bray C – *A Dictionary of Glass Materials and Techniques* (A&C Black, 2001) ISBN 978-0713657920

Brown C – *The Bible of Sculpting Techniques* (A&C Black, 2007, ISBN 978-0713687590

Delpesch J and Figueres M – *The Mouldmaker's Handbook* (A&C Black, 2004) ISBN 978-0713667707

European Ceramic Work Centre – *The Ceramic Process* (A&C Black, 2005) ISBN 978-0713667684

Grey M – *Encyclopedia of Machine Embroidery* (Batsford, 2004) ISBN: 978-1906388188

Holmes V – *Paper, Metal and Stitch* (Batsford, 2004) ISBN 978-0713489187

Hughes R and Rowe M – *The Colouring, Bronzing and Patination of Metals* (Thames & Hudson, 1991) ISBN 978-0500015018

Leitner C – *Paper Textiles* (A&C Black, 2005) ISBN 978-0713674446

McCreight T – *Jewellery: Fundamentals of Metalsmithing* (A&C Black, 2003) ISBN 978-0713649000

McGrath – *The Jeweller's Directory of Decorative Finishes* (A&C Black, 2005) ISBN 978-0713670936

Noyce R – *Printmaking at the Edge* (Batsford, 2006) ISBN 978-0713667844

Perrella L – *Artists' Journals and Sketchbooks: Exploring and Creating Personal Pages* (Rockport Publishers Inc, 2007) ISBN 978-1592530199

Peterson S and J – *Working with Clay* (Laurence King, 2009) ISBN 978-1856696050

Plowman J – *The Manual of Sculpting Techniques* (A&C Black, 2003) ISBN 978-0713665802

Ruddic Bloom S – *Digital Collage and Painting: Using Photoshop and Painter to Create Fine Art* (Focal Press, 2006) ISBN 978-0240807058

Seegmiller D and Pardew L – *Mastering Digital 2D and 3D Art* (Premier Press, 2004) ISBN 978-1592005611

Sentence B – *Ceramics – A World Guide to Traditional Techniques* (Thames & Hudson, 2004) ISBN 0500511772

Sheehan S – *The Artist's Handbook of Materials and Techniques* (Faber and Faber, 1991) ISBN 978-0571143313

Singer M and Spyrou M – *Textile Arts* (A&C Black, 2000) ISBN 978-0713657166

Journals

Blueprint – Wilmington Media

Ceramic Review – Craft Potters Association

Crafts – Crafts Council

Creative Review – Centaur Communications Ltd

Design Week – Centaur Communications Ltd

International Textiles – ITBD Publications

New Design – DWB Associates

Selvedge – Selvedge Ltd

Websites

www.craftscouncil.org.uk

a national organisation for the promotion of contemporary crafts

www.design-council.org.uk

the national strategic body for design

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	selecting practitioners' works which links with own work researching materials and techniques used in the specialist field
Creative thinkers	applying new techniques to their work
Reflective learners	recording and reflecting on the features and requirements of specialist materials and techniques evaluating results of practical investigations
Team workers	following health and safety procedures, with awareness of risk to self and others, when working with specialist materials and techniques
Self-managers	being organised and carrying out investigations about specialist materials and techniques systematically.

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	exploring materials and techniques from contextual research recognising potential in unexpected results
Creative thinkers	trying out alternative or unusual ways of working with materials and techniques
Reflective learners	discussing results of investigations to inform own understanding of materials and techniques reviewing progress on exploratory tasks evaluating findings of investigations
Team workers	helping others practically when working with tools and equipment sharing findings about physical and visual properties of materials and techniques with others.

● Functional Skills – Level 2

Skill	When learners are ...
ICT – Find and select information	
Select and use a variety of sources of information independently for a complex task	identifying and selecting relevant links from broad, overarching sites
Access, search for, select and use ICT-based information and evaluate its fitness for purpose	researching and selecting relevant information about the specialist field, practitioners working in that field, and images of work and technical information
ICT – Develop, present and communicate information	
Evaluate the selection and use of ICT tools and facilities used to present information	exploring the use of ICT specialist techniques
Select and use ICT to communicate and exchange information safely, responsibly and effectively including storage of messages and contact lists	storing identified potentially useful sources for future access
English	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	<p>following procedures described and demonstrated participating in a group critique, listening while others make presentations</p> <p>describing how investigations were carried out</p> <p>explaining the features and requirements of the chosen specialist field</p> <p>presenting findings to a group</p> <p>contributing to discussions about own and others' works individually and at group critique</p>
Reading – compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions	<p>reading about selected works to gather information about the materials and techniques used</p> <p>reading about selected practitioners working in the specialist field, to understand how their works developed</p>
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	<p>transcribing research information</p> <p>producing records of technical information about specialist materials and techniques from their investigations conducted</p> <p>producing written observations from investigation findings about the visual properties of specialist materials and techniques</p> <p>producing a written evaluation of what has been learned.</p>