

CONSTRUCTION CRAFTS
Intermediate 2

Second edition — April 2007

**NOTE OF CHANGES TO ARRANGEMENTS
SECOND EDITION PUBLISHED APRIL 2007**

COURSE TITLE Construction Crafts (Intermediate 2)

COURSE NUMBER: C218 11

National Course Specification: Minor amendments to update format

National Unit Specification: Minor amendments to update format

National Course Specification

Construction Crafts (Intermediate 2)

COURSE CODE **C218 11**

COURSE STRUCTURE

This Course has three mandatory Units and a choice of one from two optional Units.

The mandatory Units are:

<i>DM7C 11</i>	<i>Construction Crafts: Employability Skills</i>	<i>1 credit</i>	<i>(40 hours)</i>
<i>DX0L 11</i>	<i>Construction Crafts: One Brick Walling</i>	<i>1 credit</i>	<i>(40 hours)</i>
<i>DX0J 11</i>	<i>Construction Crafts: Bench Joinery</i>	<i>1 credit</i>	<i>(40 hours)</i>

The optional Units are:

<i>DX0T 11</i>	<i>Construction Crafts: Plumbing of Sanitary Appliances</i>	<i>1 credit</i>	<i>(40 hours)</i>
<i>DX0R 11</i>	<i>Construction Crafts: Decorative Painting Techniques</i>	<i>1 credit</i>	<i>(40 hours)</i>

To achieve the Course award the candidate must successfully achieve all the Units which make up the Course.

RECOMMENDED ENTRY

While entry is at the discretion of the centre, it would be beneficial for candidates to have attained the following or equivalent:

- ◆ Intermediate 1 Construction Crafts Course or its Units

PROGRESSION

This Course or its Units may provide progression to:

- ◆ Scottish Vocational Qualifications in construction crafts
- ◆ further education
- ◆ training/employment

Administrative Information

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National Course Specification: Course details (cont)

COURSE Construction Crafts (Intermediate 2)

CREDIT VALUE

The Intermediate 2 Course in Construction Crafts is allocated 24 SCQF credit points at SCQF level 5*.

**SCQF points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

There is no automatic certification of Core Skills or Core Skills components in this Course.

Opportunities for developing aspects of Core Skills are highlighted in the Support Notes of the Unit Specifications for this Course.

LINKS TO NATIONAL OCCUPATIONAL STANDARDS

National Occupational Standards (NOS) are developed by the key employment sectors of the United Kingdom. These standards set the competences required for job roles within a particular employment sector.

The Intermediate 2 Construction Crafts Course has been designed to link broadly to National Occupational Standards, but the standards required of first-year apprentices in the building industry are significantly more demanding than those in this Course.

Compared to National Occupational Standards, this Course involves less scale and complexity in practical work, and/or more achievable tolerances. For example, one of the mandatory Units in the Course, *Construction Crafts: One-Brick Walling*, requires candidates to build a one-brick wall with a stopped end, toothed and racked back, and a one-brick wall with return corner and racked back, all to a drawing or given dimensions. In the Unit, the scale of the exercises is less extensive than that given to apprentices in training in industry. The tolerances demanded by the Intermediate 2 Unit are also less demanding than those found in National Occupational Standards. The Course nevertheless introduces candidates to the type of assessment regime they will encounter in industry and provides a useful preparation for employment or further training in the construction industry.

In other Units in the Intermediate 2 Construction Crafts Course, the tolerances required are similarly less stringent than those required of trade apprentices.

National Course Specification: Course details (cont)

COURSE Construction Crafts (Intermediate 2)

RATIONALE FOR SKILLS FOR WORK COURSES

Skills for Work Courses are designed to help candidates to develop:

- ◆ skills and knowledge in a broad vocational area
- ◆ Core Skills
- ◆ an understanding of the workplace
- ◆ positive attitudes to learning
- ◆ skills and attitudes for employability

A key feature of these Courses is the emphasis on *experiential learning*. This means learning through practical experience and learning by reflecting on experience.

Learning through practical experience

- ◆ Teaching/learning programmes should include some or all of the following:
 - learning in real or simulated workplace settings
 - learning through role play activities in vocational contexts
 - carrying out case study work
 - planning and carrying out practical tasks and assignments

Learning through reflecting at all stages of the experience

- ◆ Teaching/learning programmes should include some or all of the following:
 - preparing and planning for the experience
 - taking stock throughout the experience — reviewing and adapting as necessary
 - reflecting after the activity has been completed — evaluating and identifying learning points

The Skills for Work Courses are also designed to provide candidates with opportunities for developing *Core Skills* and enhancing skills and attitudes for *employability*.

CORE SKILLS

The **five** Core Skills are:

- ◆ Communication
- ◆ Numeracy
- ◆ Information technology
- ◆ Problem Solving
- ◆ Working with Others

National Course Specification: Course details (cont)

COURSE Construction Crafts (Intermediate 2)

Employability

Some of the skills and attitudes for employability, including self-employment, are outlined below:

- ◆ *generic skills/attitudes valued by employers:*
 - understanding of the workplace and the employee's responsibilities, for example, time-keeping, appearance, customer care, health and safety
 - self-evaluation skills
 - positive attitude to learning
 - flexible approaches to solving problems
 - adaptability and positive attitude to change
 - confidence to set goals, reflect and learn from experience

- ◆ *specific vocational skills/knowledge:*
 - Course Specifications highlight the links to National Occupational Standards in the vocational area and identify progression opportunities

Opportunities for developing these skills and attitudes are highlighted in each of the Course and Unit Specifications. These opportunities include giving young people direct access to workplace experiences or, through partnership arrangements, providing different learning environments and experiences which simulate aspects of the workplace. These experiences might include site visits, visiting speakers, role play and other practical activities.

A Curriculum for Excellence (Scottish Executive 2004) identifies aspirations for every young person. These are that they should become:

- ◆ successful learners
- ◆ confident individuals
- ◆ responsible citizens
- ◆ effective contributors

The learning environments, the focus on experiential learning and opportunities to develop employability and Core Skills in these Courses contribute to meeting these aspirations.

National Course Specification: Course details (cont)

COURSE Construction Crafts (Intermediate 2)

RATIONALE FOR INTERMEDIATE 2 CONSTRUCTION CRAFTS COURSE

The construction industry is a major employer and significant contributor to the Scottish economy. There is a need for trainees in all of the trades in this diverse sector. The Intermediate 2 Course allows candidates to gain an insight into several of the important trades and make informed choices regarding a career in construction.

The *Intermediate 2 Construction Crafts Course* has been designed to provide a basis for progression into further education or for moving directly into training or employment within the construction sector. The purpose of the Course is to ensure that candidates start to develop the general skills, practical skills, knowledge and understanding and employability skills needed within the sector.

The Course structure has been designed to reflect important trades in the construction industry. The two trade-specific Units in the mandatory section deal with brickwork and bench joinery. Brickwork contractors and joinery contractors regularly act as principal or main contractors and co-ordinate the work of the other trades as well as their own. The two optional Units deal with trades that are always in demand — plumbing and painterwork. The mandatory Unit, *Intermediate 2 Construction Crafts: Employability Skills*, reflects those generic employability skills that are valued by employers.

The primary target group for this Course is school candidates in S3 and above with an aptitude and enthusiasm for practical crafts work or who have previous experience of construction crafts at Intermediate 1. It is anticipated that, for this group of candidates, the Course will rely on and build on existing partnerships between schools and colleges (or other agencies). This may be particularly pertinent in the case of the Construction Crafts Course due to the specialist expertise and facilities available in, for example, Further Education colleges and with training providers. Nevertheless, the Construction Crafts Course is designed at a level and scope such that it can be delivered in schools, if the school has suitable facilities and teaching expertise. The Course is also suitable for adult candidates who are seeking to enhance their employability and develop introductory vocational skills in the construction sector.

The general aims of the Construction Crafts Course are to:

- ◆ widen participation in vocationally-related learning
- ◆ allow candidates to experience vocationally-related learning
- ◆ provide candidates with a broad introduction to the construction crafts vocational sector
- ◆ encourage candidates to foster a good work ethic, including timekeeping, a positive attitude and other relevant employability skills
- ◆ provide opportunities to develop a range of Core Skills in a realistic context
- ◆ encourage candidates to take charge of their own learning and development
- ◆ provide a range of teaching, learning and assessment styles to motivate candidates to achieve their full potential
- ◆ facilitate progression to further education and/or training

In particular, the aims of this Course in Construction Crafts are to:

- ◆ give candidates the knowledge, skills and understanding associated with a range of craft skills in construction at this level
- ◆ develop an awareness that health and safety issues and risk assessment are central to the world of work and, in particular, to the construction industry

National Course Specification: Course details (cont)

COURSE Construction Crafts (Intermediate 2)

- ◆ encourage candidates to be proactive regarding health and safety
- ◆ encourage candidates to develop a positive attitude to waste minimisation and environmental issues
- ◆ enable candidates to develop and apply practical, technical and communication skills as a foundation for future learning and progression
- ◆ encourage candidates to interact with their peers and tutors to complete practical tasks
- ◆ encourage candidates to apply their knowledge and understanding of construction by using skills of evaluation and problem-solving in a vocational context
- ◆ encourage candidates to plan their work, review their progress and implement change where necessary
- ◆ prepare candidates for further learning opportunities, study and training for employment in construction and the built environment sectors and related occupations

The *Intermediate 2 Construction Crafts Course* has been designed with National Occupational Standards in mind. There is a link, though not directly, to these Standards. The standards required of first-year apprentices in the building industry are significantly more onerous than those for this Course which is at an introductory level.

While no formal entrance qualifications are required for this Intermediate 2 Course, it would be expected that candidates embarking on the Course will find the following learning skills and aptitudes helpful:

- ◆ basic proficiency in literacy
- ◆ proficiency in numeracy
- ◆ an aptitude and enthusiasm for practical crafts work
- ◆ some aptitude for graphical forms of communication (the reading of drawings is specifically required by the Course)
- ◆ motivation to work independently
- ◆ ability to work as part of a small team

Candidates who have previously achieved the *Intermediate 1 Construction Crafts Course* will find that the *Intermediate 2 Course* allows them to develop their skills by tackling more complex crafts activities. The *Intermediate 2 Course* can, nevertheless, be attempted by candidates with no prior experience of construction crafts but who have an aptitude or enthusiasm for practical crafts work.

This Course supports progression into appropriate further education or training. The Course provides the basis for candidates to gain an insight into the craft occupations of brickwork, joinerwork and plumbing or painting, and to use their studies to help them decide the career they wish to follow.

Candidates studying the *Intermediate 2 Construction Crafts Course* may progress into a craft apprenticeship and undertake a Scottish Vocational Qualification whilst in employment. They may also choose to progress to a full-time pre-vocational course in a further education college. All candidates will benefit from the transferable employability skills developed in this Course, regardless of which career they choose to follow.

National Course Specification: Course details (cont)

COURSE Construction Crafts (Intermediate 2)

COURSE CONTENT

Summary of Course content

The Course has three mandatory Units and one optional Unit selected from a choice of two. In the mandatory section one of the Units addresses a range of employability skills related to the construction industry. The other two mandatory Units are concerned with the two main construction crafts of brickwork and joinery.

The optional section requires candidates to take one 40-hour Unit from a choice of two. The Unit in this section can be chosen, if applicable, to extend the candidate's experience of one of the craft skills already undertaken in the *Intermediate 1 Construction Crafts Course*. The selection of the optional Unit may, alternatively, simply be to enable the candidate to gain experience of an additional construction craft.

All of the craft skills Units, whilst focusing on specific craft skill areas, address generic skills relating to quality checking and health and safety issues.

Summary of Unit content

Mandatory section

Construction Crafts: Employability Skills (Intermediate 2) (1 credit)

Candidates are required to develop work practices and attitudes that enhance employability. They will review the skills they have developed and adapt their performance in subsequent activities. Candidates will carry out basic risk assessments and record their findings. They will also develop skills in interpretation of drawings and in preparing basic materials schedules from drawing and specification information.

Construction Crafts: One-Brick Walling (Intermediate 2) (1 credit)

Candidates are required to set out and build short sections of one-brick wall in accordance with given drawings and to prescribed tolerances. This will give them experience of brick bonding techniques significantly beyond simple half-brick walls.

Construction Crafts: Bench Joinery (Intermediate 2) (1 credit)

Candidates will learn a number of joinery jointing techniques. They will learn skills in measurement as well as how to cut, assemble and fix timbers into a frame from a given drawing.

Optional section

Construction Crafts: Plumbing of Sanitary Appliances (Intermediate 2) (1 credit)

Candidates are required to assemble, fit and fix a significant piece of sanitaryware such as a wash hand basin. They will assemble and fix associated fittings such as handwheels (taps) and wastes and will fabricate and connect both copper and plastic pipework associated with the sanitary appliance.

National Course Specification: Course details (cont)

COURSE Construction Crafts (Intermediate 2)

QUALITY ASSURANCE

The Units of all National Courses are subject to internal verification and may also be chosen for external verification by SQA. This is to ensure that national standards are being applied across all subjects.

To assist centres, Senior Verifier reports are published on SQA's website www.sqa.org.uk

GUIDANCE ON LEARNING/TEACHING AND ASSESSMENT APPROACHES FOR THIS COURSE

The Course has three mandatory Units and one optional Unit selected from a choice of two. These Units can be attempted in any order, but the mandatory Employability Skills Unit should span the Course, allowing candidates ample opportunity and time to develop and review employability skills and attitudes over a range of trade activities and over a reasonable period of time.

The trade-specific Units in the mandatory section deal with two main trades in the construction industry. Brickwork contractors and joinery contractors regularly act as principal or main contractors and co-ordinate the work of the other trades as well as their own.

The optional Units are from trades that are always in demand. Plumberwork allows candidates to work with a variety of tools and materials. Plumbers must also be able to read drawings and assemble bathroom and kitchen fittings in accordance with manufacturers' instructions. Painterwork involves learning specialist techniques that have stood the test of time. Furthermore, modern tools and materials have added new dimensions to this popular trade. Candidates will learn skills in decorative finishes and in creating patterns in freehand brushwork. Candidates will also experiment with colours and learn how to mix different colours to match given paint samples.

Learning and Teaching

The Course has been designed to ensure that candidates are involved in lots of hands-on work, learning through practical experiences. The main focus in each of the trade-specific Units is on experiential learning. General vocational skills, such as the careful selection and maintenance of tools and equipment and adherence to health and safety requirements, are integrated with the practical work in the Units.

As an essential prelude to the carrying out of practical tasks, candidates will be introduced to the importance of health and safety and workshop protocol. Candidates will gain experience of aspects of the health and safety regime in the workshop by carrying out basic risk assessments for the workspace or for particular construction trade activities. (Formal risk assessments are carried out by responsible individuals appointed by each centre in accordance with legislation).

National Course Specification: Course details (cont)

COURSE Construction Crafts (Intermediate 2)

Teaching and learning approaches should include demonstrations of practical work by tutors. Short lessons on specific aspects of trade practice and the correct use of tools will prove invaluable and should be offered at regular and appropriate intervals throughout the learning experience. This is especially important because, at Intermediate 2, candidates will learn skills significantly beyond those required of Intermediate 1 candidates. For example, one-brick walling requires the use of significantly more complex brick bonds than half-brick walling. The other trade-specific Units in this Course similarly require that candidates learn more demanding skills and accomplish more complex or intricate tasks than at Intermediate 1.

Practical demonstrations by tutors may be followed by brief practice sessions in which the candidates practice the skills emphasised in the demonstration. Given the practical nature of teaching/learning and assessment, centres should ensure that teaching sessions are sufficiently long to ensure that such sessions provide a meaningful experience for candidates.

Learning from practical experiences and reflecting on them is an approach that is embedded in the Course. Throughout the learning experience, the emphasis should be on helping candidates to develop an awareness of the employability skills and attitudes needed in the construction industry. These include, for example, good timekeeping, co-operating with others, awareness of hazards and other health and safety issues, careful reading of drawings, following instructions and a willingness to learn. Opportunities to develop these skills and attitudes will arise naturally throughout the Course. Candidates should be aware that these generic skills are just as valuable as the practical craft skills they are developing.

It is important for workshop activities to be carried out to the scheduled timetable; candidates will have opportunities to demonstrate good timekeeping and see the benefit of this in their achievements. Candidates will have to co-operate and communicate with others regarding the shared workspace. They may have to co-operate over the sharing of common tools and equipment.

Although candidates are required to carry out only a limited number of formal reviews of their work and learning for assessment purposes, they should be encouraged to review their work throughout the Course and on an ongoing basis. They should come to appreciate that reviewing their work is good practice and that their work improves as a consequence of developing this habit.

Candidates should be encouraged to develop a positive attitude to waste minimisation and environmental issues regarding the use of materials. They should be asked to consider waste minimisation when completing lists or schedules of materials required for practical activities in the different trades. Waste minimisation is also highlighted when candidates assist in clearing away surplus materials and tidying up the workplace during and after practical work. The Course will also increase awareness that health and safety issues are important in the workplace generally and in the construction industry in particular.

In carrying out trade activities, candidates will learn that there are correct and incorrect ways to use tools and equipment. Tutors will be able to demonstrate to candidates various examples of good working practice and trade techniques. Candidates, in turn, will learn the importance and value of following instructions. Such positive experiences will contribute to the fostering of a positive attitude to learning.

National Course Specification: Course details (cont)

COURSE Construction Crafts (Intermediate 2)

Teachers and lecturers may wish to discuss job opportunities with candidates. Candidates will become aware of the further steps they need to take to gain employment or further training. Through their experiences of the various practical crafts in the Course, they should become better equipped to make informed personal choices regarding careers and further study.

Opportunities to develop aspects of Core Skills should be taken where they arise naturally. For example, candidates will develop aspects of numeracy when making calculations for the materials they require and in setting out and planning practical exercises. Candidates will also have to communicate with tutors and other candidates regarding craft practices, materials and tools, health and safety and collaborative working in the workplace. Aspects of problem solving will arise in the carrying out of practical construction activities.

Teaching and learning approaches should encourage candidates to take responsibility for their own learning and development. In the practical Units in the Course, candidates need to carry out quality checks on their own work. This provides a good opportunity to motivate candidates to take pride in their work and to be confident that their work is up to standard. In the Employability Skills Unit, candidates will take responsibility for seeking feedback and identifying action points for improvement. This should help them to develop confidence in speaking on a one-to-one basis with teachers and lecturers, in taking advice and in asking for direction and assistance when necessary.

Preparation for practical activities, visiting speakers, visits

Throughout the Course, the need for correct preparation in advance of practical activities should be stressed. Preparatory work should not take a long time to complete if correct trade practices are emphasised by tutors on a day-to-day basis.

Candidates will learn how to interpret drawings and associated written instructions. Such skills can be acquired through carefully planned and managed tutorial sessions. In addition, teaching the correct use of tools and equipment and a positive view of health and safety should help to ensure that preparation for practical work is comprehensive but does not take too long.

Candidates will require supervision during workshop sessions — not just to help with practical work but for health and safety reasons as well. The learning environment should be designed to promote safe systems of work and to minimise risks. For example, when undertaking the task of transporting and stacking bricks for brickwork activities, a safe system of work involving a correct route through and around the workshop should be pre-planned by the centre and adhered to by candidates. Candidates themselves can be taught how to recognise potential safety hazards and should be encouraged to report these to a responsible person as and when they occur.

It is recommended that each practical session be preceded by a ‘tool box’ talk on an aspect of health and safety relevant to the planned work for the day. It is recommended that candidates be given appropriate and regular practice sessions in the correct use of the materials to be used in each session as well as coaching in the correct use of associated tools and equipment.

Centres are encouraged to establish links with local industry. Local construction companies, trades associations, builders’ merchants and chambers of commerce may be happy to offer support. For example, they might send representatives from their organisations to give short talks or presentations about the work of their company. Visitors from industry will also be able to give candidates a realistic view of jobs and conditions in construction.

National Course Specification: Course details (cont)

COURSE Construction Crafts (Intermediate 2)

It may be possible for centres to arrange visits to building sites as part of the candidates' learning experience. Visits to housing developments are often particularly useful because work in progress will likely be at different stages throughout the site — some houses may be at foundation stage, others with the structure in place and yet others being worked on by the finishing trades. Candidates will be able to see how, through planning, all of the different trades are able to work at the same time on the one site. Site visits, or visits to builders' merchants' premises, should be carefully arranged, organised and must be properly authorised. It would be preferable for safety reasons for those responsible for such visits to have prior knowledge of the site in question.

Approaches to assessment

Approaches to assessment which promote the efficient and effective gathering of evidence are to be encouraged.

The *Intermediate 2 Construction Crafts: Employability Skills Unit* should be integrated with the trade specific Units. Candidates can readily gather evidence for assessment of this Unit during their work in the practical trades Units. Candidates will complete a minimum of three review sheets in the different trade activities.

Part of the evidence for Outcome 2 in the *Intermediate 2 Construction Crafts: Employability Skills Unit* requires that candidates carry out a number of basic risk assessments. These should be carried out as part of the work in trade specific practical Units.

Assessment of Outcome 3, in the same Unit, which focuses on interpreting drawings and producing a schedule of materials required, could also take place during the work in trade specific practical Units.

Within the trade specific practical Units, the candidate will produce evidence as a natural part of the learning and teaching process. Candidates will first learn and practise the correct techniques and methods for each of the trades they undertake. Assessment of the various practical tasks will take place at appropriate points throughout the Course, allowing time for candidates to make quality checks on their finished products against prescribed tolerances. This should be done before submitting their work for formal assessment.

Health and Safety

Risk assessment and compliance with health and safety legislation is of paramount importance in this Course. Candidates and tutors alike, therefore, need to be aware of the hazards encountered in construction crafts activities, for example, slips, trips and falls. Correct manual handling techniques are also important in, for example, brickwork. Candidates must also learn the correct method of stacking bricks in preparation for builderwork activities.

Candidates fabricating joints in timber frames should be well informed of the hazards inherent in working with sharp tools. They must be taught correct techniques in the use of such tools.

Candidates of plumberwork carrying out work on kitchen or bathroom fittings should be taught correct manual handling techniques. Sometimes they might be dealing with items of sanitaryware that require lifting by two persons because they may be awkward to lift or manoeuvre into position.

When candidates are working with paint, precautions should be taken to guard against skin contact with certain paint materials. Slipping and tripping hazards must also be addressed.

National Course Specification: Course details (cont)

COURSE Construction Crafts (Intermediate 2)

Due to the health and safety implications involved in working on building sites, the Construction Crafts Units have been designed so that they can be taught and assessed in a workshop environment. Legislation effectively precludes work placement for 14–16 year olds on building sites. This Course has been designed with that in mind and does not require work placement.

It is the centre's responsibility to carry out risk assessments. Centres should ensure that they comply with all current legislation.

Part of the evidence for Outcome 1 in the *Intermediate 2 Construction Crafts: Employability Skills Unit* requires that candidates carry out a number of basic risk assessments. These should be carried out as part of the work in trade-specific practical Units. Candidates are not required to carry out the risk assessments that centres are required by law to perform.

The *Intermediate 2 Construction Crafts Course* requires access to safe and suitably equipped classrooms, workshops or work areas to deliver and assess the vocational craft Units. These workshops or work areas should be of an appropriate size and have sufficient tools, equipment and resources to deliver and assess the Units for the number of learners in the class group or groups. This may take the form of a combined workshop/project area divided into suitable work areas for each craft, or of separate workshops for each trade. Storage areas for materials and personal protective equipment (PPE) should also be provided. Washing and drying facilities will be required to allow candidates to clean themselves after working with construction materials.

It is recognised that some centres will not have facilities available to deliver all of the Units in this qualification; in these cases, appropriate partnership arrangements may provide the learning environments and/or expertise necessary to deliver the Course. In such situations all partners involved should discuss health and safety and safe systems of work as a priority. They should also set up arrangements for ongoing communication between partners on health and safety.

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for this Course. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

National Course Specification: Course details (cont)

COURSE Construction Crafts (Intermediate 2)

Appendix: Employability Skills Profile

In addition to the specific, vocational skills developed and assessed in this Course, employability skills are addressed as detailed in the table below. For the purposes of the table, the Units are referred to as A, B, C, D and E as indicated.

Construction Crafts: Employability Skills	= A
Construction Crafts: One Brick Walling	= B
Construction Crafts: Bench Joinery	= C
Construction Crafts: Plumbing	= D
Construction Crafts: Decorative Painting Techniques	= E

Employability skill/attitude	Evidence
◆ timekeeping	A
◆ attendance	A
◆ following instructions	A
◆ taking advice and dealing with constructive feedback	A
◆ maintaining tidy work area	A
◆ working co-operatively with others	A
◆ planning and preparation	All
◆ checking quality of own work	All
◆ positive attitude to learning	A
◆ review and self-evaluation	A
◆ awareness of health and safety issues	All
◆ interpretation of graphic information	All
◆ calculating materials requirements	A
◆ waste minimisation	B, D, E
◆ basic risk assessment	A

Assessment evidence in all Units:

- A = Candidate Review Sheet; candidate's risk assessment; candidate's materials schedules
 B–E = Assessor observation checklist, candidate quality check

National Unit Specification: general information

UNIT Construction Crafts: Employability Skills (Intermediate 2)

CODE DM7C 11

COURSE Construction Crafts (Intermediate 2)

SUMMARY

This Unit is a mandatory Unit in the *Intermediate 2 Construction Crafts Course* and has been designed to be taken as part of this Course.

The *Intermediate 2 Construction Crafts: Employability Skills Unit* is suitable for candidates with no previous construction crafts experience and may also provide progression for candidates who have successfully completed the *Intermediate 1 Construction Crafts Course* or Units.

This Unit is to be undertaken in the context of practical crafts work. Candidates will have the opportunity to develop working practices which enhance employability. These working practices will include for example, good time-keeping, health and safety awareness, team working and the carrying out of quality checks. Candidates will also develop self-evaluation skills and the ability to adapt their performance in the light of self-evaluation and feedback from others. The Unit also incorporates skills which are common in all trade activities: skills in interpreting drawings; producing basic materials schedules; and carrying out basic risk assessments.

Candidates who achieve this Unit should feel confident in progressing to further study and training or employment.

OUTCOMES

- 1 Demonstrate work practices which enhance employability in construction crafts.
- 2 Carry out basic risk assessments.
- 3 Use scale drawings to calculate materials required for practical activities.
- 4 Evaluate and review own performance in specified employability skills.

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National Unit Specification: general information (cont)

UNIT Construction Crafts: Employability Skills (Intermediate 2)

RECOMMENDED ENTRY

Entry is at the discretion of the centre.

CREDIT VALUE

1 credit at Intermediate 2 (6 SCQF credit points at SCQF level 5*).

**SCQF points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

There is no automatic certification of Core Skills in this Unit.

Opportunities for developing aspects of Core Skills are highlighted in *Guidance on Learning and Teaching Approaches for this Unit*.

National Unit Specification: statement of standards

UNIT Construction Crafts: Employability Skills (Intermediate 2)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

OUTCOME 1

Demonstrate work practices which enhance employability in construction crafts.

Performance Criteria

- (a) Work in accordance with given workshop protocol and safe systems of work.
- (b) Work co-operatively with others.
- (c) Carry out instructions from person responsible.
- (d) Maintain tidy work areas in accordance with health and safety requirements.
- (e) Check own practical work in accordance with prescribed schedule and standards.

OUTCOME 2

Carry out basic risk assessments.

Performance Criteria

- (a) Identify hazards in the context of construction crafts.
- (b) Identify people at risk from these hazards and describe how they might be harmed.
- (c) Evaluate the risks associated with hazards in terms of likelihood and impact.
- (d) Describe the control measures needed to minimise risk.

OUTCOME 3

Use scale drawings to calculate materials required for practical activities.

Performance Criteria

- (a) Use a scale rule to take measurements from a drawing to within prescribed tolerances.
- (b) Calculate materials requirements for practical activities taking account of waste, cutting and breakages.
- (c) Produce a correctly completed materials schedule on a given pro forma.

OUTCOME 4

Evaluate and review own performance in specified employability skills.

Performance Criteria

- (a) Identify own strengths and weaknesses in specified employability skills.
- (b) Identify learning points from own performance in specified employability skills.
- (c) Identify action points for improvement of own performance taking account of review and feedback.
- (d) Demonstrate progress in own performance over a period of time.

National Unit Specification: statement of standards (cont)

UNIT Construction Crafts: Employability Skills (Intermediate 2)

EVIDENCE REQUIREMENTS FOR THIS UNIT

Written/oral recorded evidence is required to show that all Outcomes and Performance Criteria have been achieved.

The evidence for this Unit will be generated from a practical assignment and candidate reviews.

Practical Assignment

A practical assignment covering Outcomes 2 and 3 will require candidates to produce:

- ◆ a minimum of **two** basic risk assessments in different trades, recorded on given pro forma
 - the two risk assessments may both be of workspaces or of trade activities; alternatively, candidates may carry out one risk assessment of a workspace and another of a trade activity
- ◆ a minimum of two materials schedules completed prior to commencement of practical activities

Candidate Reviews

Candidates will be required to:

- ◆ complete a minimum of three candidate review sheets relating to a minimum of three different practical trade activities
 - assessors will complete the relevant section of each review sheet, giving feedback on the candidate's performance
 - the assessor will sign each review sheet

The NAB item for this Unit contains candidate review sheets and pro forma for recording the results of risk assessment and materials requirements. The NAB illustrates the national standard required for this Unit. Centres who wish to devise their own assessments should refer to the NAB to ensure a comparable standard.

National Unit Specification: support notes

UNIT Construction Crafts: Employability Skills (Intermediate 2)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

The content and context for this Unit is at an introductory level. The main purpose of the Unit is to prepare candidates for employment in the construction industry. To this end the Unit focuses on encouraging candidates to develop the correct work practices and attitudes that are valued by employers. Candidates will develop the following employability skills, which are important to employers in the construction industry. These are also transferable skills that are valued in all sectors of work:

- ◆ timekeeping
- ◆ attendance
- ◆ following instructions
- ◆ taking advice and dealing with constructive feedback
- ◆ maintaining a tidy work area
- ◆ working co-operatively with others
- ◆ planning and preparation
- ◆ carrying out a basic risk assessment
- ◆ checking quality of own work
- ◆ having a positive attitude to learning
- ◆ self-evaluation skills
- ◆ awareness of health and safety issues
- ◆ interpreting graphic information
- ◆ calculating material requirements
- ◆ minimising waste

Candidates will be provided with an opportunity to review how well they have progressed in developing work practices by comparing their own evaluation with that of their assessors. They will also be asked to demonstrate that they can make progress in their performance in light of advice and feedback and their own evaluation. Candidates will have a significant degree of ownership in this process. They should be positively encouraged to develop the habit of seeking feedback from tutors and engaging in discussions about their progress and about aspects of their performance that they can improve. Tutors should give constructive feedback and support candidates in finding ways to improve.

If a candidate's attendance and timekeeping are already very good, positive feedback can be given and the tutor and candidate can concentrate on other aspects of the candidate's work or performance.

An important employability skill is the ability to work in accordance with workshop protocol and safe systems of work. The precise details of these requirements will be different from one workshop or workplace to another. However, these should cover aspects such as traffic routes, the checking in and checking out of tools, equipment and materials, as well as the order in which tasks are to be carried out or the number of people allowed in stores at any one time.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Employability Skills (Intermediate 2)

The carrying out of risk assessment is an important aspect of work activities in all industries and workplaces. As the construction industry involves a significant number of potential hazards it is important that candidates are introduced to the kind of risk assessment regime they will encounter in the workplace. The principles and process of risk assessment are the same whether working on site or in a workshop. Moreover, a risk assessment is a requirement in all industries and places of work. Candidates will therefore be acquiring transferable skills when they learn how to carry out a risk assessment.

Candidates will learn the difference between a hazard and a risk. They will also learn how to identify common hazards in the workplace, become familiar with typical risk assessment forms and carry out basic risk assessments. Learning and teaching activities should focus on two aspects of risk assessment:

- ◆ risk assessment with regard to the workspace or workplace itself
- ◆ risk assessment with regard to the work activities to be carried out in the workplace or workshop

The process of risk assessment is well documented by the Health and Safety Executive (HSE) and generally involves the following steps:

- 1 Look for the hazards
- 2 Decide who might be harmed and how
- 3 Evaluate the risks and decide whether the existing precautions are adequate or whether more should be done
- 4 Record your findings
- 5 Review your assessment and revise it if necessary

As well as risk assessment, the ability to take a given drawing and produce a materials schedule provides candidates with another set of transferable skills. Candidates will interpret basic drawings in order to produce a materials schedule for practical trade activities. Materials schedules should include a clear description of the quantity and quality of building materials required for an activity.

In the construction industry, materials schedules are often produced either by the Site Agent or the Buyer. The Site Agent has the responsibility to make sure that everyone on site knows what they are doing and has the materials to carry on with their work. In this Unit, candidates are asked to carry out the materials ordering function for their own practical work models. The materials required by each candidate may be small in quantity, but candidates will still be using given drawings to go through a process used on all building projects. Just as a Site Agent will use a standard form for requisitioning materials, candidates will use a given pro forma for producing their materials schedule. An example is given in the NAB item.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

It is strongly recommended that delivery is integrated with other Units in the *Intermediate 2 Construction Crafts Course*. For example, with regard to Outcomes 1, 2 and 4, candidates should be actively encouraged to develop the correct work practices and attitudes in each of the trade-specific Units they undertake. Likewise, the scaling of drawings and the production of materials schedules for requisition purposes should be delivered and assessed around the practical construction activities the candidates are undertaking in the other Units of the *Intermediate 2 Construction Crafts Course*.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Employability Skills (Intermediate 2)

In this Unit it is important that candidates are given a thorough induction which stresses the importance of the generic employability skills listed in *Guidance on the Content and Context for this Unit*. It would be helpful to invite speakers from industry and to give candidates the opportunity to speak to groups of employees and apprentices. This could help to reinforce the value that employers place on these skills in the real workplace.

Teachers/lecturers may also be able to use induction sessions to emphasise the importance of good health and safety practices and the potential consequences of breaches of the agreed safety rules.

Candidates will be sharing a workshop with others. They may have their own bench or space within the workshop but will have to learn how to work co-operatively with others regarding shared workspaces, shared tools, equipment and materials storage areas. At the start of each new workshop session teachers/lecturers could remind candidates of the protocols involved in the workshop and the potentially dangerous consequences of a failure to co-operate with fellow candidates in the workplace.

Candidates should be taught, at the earliest opportunity, how quality checks in the context of each trade should be carried out. This will help them to understand that each trade uses different materials or tools and may be working to a different set of standards and tolerances. The procedures of quality checking within each trade and the concept of 'right first time' may be explained as the candidate groups progress through the trade-specific activities. This may be done as a class group or in smaller groups as time permits. Candidates should become actively involved in carrying out quality checks of their own work as a matter of routine.

When working on risk assessment activities teachers /lecturers should demonstrate the process of risk assessment on identified workspaces and work activities. It will also be helpful for candidates to see a range of completed risk assessment forms. Before candidates are asked to carry out a risk assessment themselves, they should be taught about hazards associated with the workshop and work activities.

When learning how to produce materials schedules, the importance of correct scheduling and ordering of building materials can be illustrated by the use of bills of quantities and drawings from real-life building projects. Site visits might allow candidates to begin to appreciate what is involved in planning and ordering the materials for a new house.

It is likely that candidates will not appreciate all aspects of materials requirements in a trade before they have had some practical experience in that trade. Experience will help them learn to judge for example, how much extra to allow in a length of timber to take account of waste and cutting or how many extra bricks might be needed to take account of breakages. Once they have an appreciation of what is involved in practical trade activities, the teacher/lecturer should arrange tutorial sessions for the whole class on completing a materials schedule.

As preparation for reviews, candidates can be encouraged to get into the habit of asking for feedback on their performance in practical work. Teachers/lecturers could help to build candidates' confidence by giving regular, constructive feedback on generic skills such as: working co-operatively with others, carrying out instructions and working in accordance with workshop protocols. Such preparatory work will help candidates when they come to carry out their formal reviews.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Employability Skills (Intermediate 2)

The *Intermediate 2 Construction Crafts: Employability Skills Unit* should also be seen as an opportunity for candidates to develop Core Skills within a practical construction craft context. For example, there are opportunities to develop numeracy skills when scaling measurements from building or component drawings and when allowing for waste and cutting of materials. Opportunities to develop oral communication skills will arise when candidates and teachers/lecturers undertake reviews. Writing skills will be developed when candidates produce risk assessments and materials schedules.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

The process of review and evaluation using the Candidate Review Sheet provided in the NAB should take place at regular intervals throughout the learning and teaching process to demonstrate progression and development. The reviews should be carried out in the context of different trade activities. The first review should be undertaken after a few weeks when the candidate will be able to comment on his/her development of employability skills with a degree of understanding as to what these mean and how to evaluate them.

The assessment of the production of materials schedules should be carried out after candidates have become familiar with specific trade terms and materials and have begun to prepare for practical work. Candidates should be asked to use a standard pro forma for the presentation of their materials schedule. A pro forma is provided in the NAB pack for this Unit.

Candidates should learn about hazards and safety from their first day in the workshop. However, assessment of their skills in carrying out basic risk assessments should only take place after candidates have become familiar with both the workshop environment and the nature of their practical work. Candidates should be asked to carry out basic risk assessments and record the findings on a risk assessment form. A risk assessment form is provided in the NAB pack for this Unit.

All assessment records should be maintained and kept up to date to keep track of candidate progress and to provide evidence for internal and external moderation purposes.

A NAB item is available to support assessment of this Unit. If centres wish to develop their own assessment instruments these should be of a comparable standard.

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

National Unit Specification: general information

UNIT Construction Crafts: One Brick Walling (Intermediate 2)

CODE DX0L 11

COURSE Construction Crafts (Intermediate 2)

SUMMARY

This Unit is a mandatory Unit in the *Intermediate 2 Construction Crafts Course* and is designed to be taken as part of this Course.

This Unit is suitable for candidates with no previous brickwork experience and may also provide progression for candidates who have successfully completed the *Intermediate 1 Construction Crafts Course* or Units.

The Unit is based on practical workshop activities such as selecting and maintaining tools, measuring and setting out brickwork and building short lengths of one-brick walls. Candidates will learn how walls of one brick thick are bonded. They will have to carry out practical work employing at least one of the standard one-brick bonds. These are more complex than those involved with half-brick walling.

Candidates studying this Unit will also develop safe working practices and general skills and attitudes which will enhance employability.

Candidates who achieve this Unit should feel confident in widening their experience in brickwork by taking other Intermediate 2 Units in this trade area.

OUTCOMES

- 1 Select, use and maintain basic bricklaying tools and equipment.
- 2 Measure and set out one brick walls.
- 3 Build one brick walls.

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National Unit Specification: general information (cont)

UNIT Construction Crafts: One Brick Walling (Intermediate 2)

RECOMMENDED ENTRY

While entry is at the discretion of the centre, it would be beneficial for candidates to have attained the following Unit or equivalent:

- ◆ *Intermediate 1 Construction Crafts: Half-Brick Walling Unit*
- ◆ *Intermediate 1 Construction Crafts: Brickwork Techniques Unit*

CREDIT VALUE

1 credit at Intermediate 2 (6 SCQF credit points at SCQF level 5*).

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

There is no automatic certification of Core Skills in this Unit.

Opportunities for developing aspects of Core Skills are highlighted in *Guidance on Learning and Teaching Approaches for this Unit*.

National Unit Specification: statement of standards

UNIT Construction Crafts: One Brick Walling (Intermediate 2)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

OUTCOME 1

Select, use and maintain basic bricklaying tools and equipment.

Performance Criteria

- (a) Selection of tools and equipment is appropriate for the work to be done.
- (b) Tools are used in the correct manner.
- (c) Tools are used solely for the purpose which they are intended.
- (d) Tools are cleaned, maintained and stored correctly.
- (e) Health and safety requirements are complied with during all activities.

OUTCOME 2

Measure and set out one-brick thick walls.

Performance Criteria

- (a) Walls are measured accurately and to the prescribed tolerance.
- (b) Walls are marked and set out correctly.
- (c) Bonds are set out correctly.
- (d) Levels at both ends are established correctly.
- (e) Health and safety requirements are complied with during all activities.

OUTCOME 3

Build one-brick walls.

Performance Criteria

- (a) Walls are built in accordance with given working drawings.
- (b) Walls are built to the prescribed standards and tolerances.
- (c) Surplus materials are returned to store in accordance with good practice.
- (d) Health and safety requirements are complied with during all activities.
- (e) A quality check is carried out on the finished work against prescribed standards and tolerances.

National Unit Specification: statement of standards

UNIT Construction Crafts: One Brick Walling (Intermediate 2)

EVIDENCE REQUIREMENTS FOR THIS UNIT

Performance evidence is required to show that all Outcomes and Performance Criteria have been achieved.

Performance evidence will be supported by an assessor observation checklist. This evidence will be generated from an integrated assignment consisting of practical activities carried out in supervised workshop conditions. The evidence may be gathered at different points throughout the Unit. The practical activities will cover:

- ◆ choosing the correct tools and equipment for particular tasks
- ◆ using tools and equipment in a correct and safe manner, using them solely for the purpose for which they are designed
- ◆ cleaning, maintaining and storing tools and equipment correctly after use
- ◆ measuring out accurately, setting out the shape of the walls, setting out the correct bond and establishing levels at ends of the walls
- ◆ building **two** basic one-brick thick walls (of minimum height **six** courses) to stated standards and tolerances, working from information on given drawings and employing **two** from the following brick bonds: English Bond, Flemish Bond, English Garden Wall Bond and Flemish Garden Wall Bond
- ◆ returning surplus materials to store in accordance with good practice
- ◆ candidates carrying out a quality check on their own work before submitting for final assessment
- ◆ candidates maintaining a clean and tidy workplace and adhering to health and safety requirements throughout all activities

The NAB item for this Unit provides an assessor observation checklist and details of the practical assignment which exemplify the national standard. Centres wishing to develop their own assessments should refer to the NAB to ensure a comparable standard.

National Unit Specification: support notes

UNIT Construction Crafts: One Brick Walling (Intermediate 2)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

The content in this Unit covers practical brickwork activities at an introductory level. The candidate is required to develop the ability to select and use tools and equipment correctly and safely. It is therefore important that the learning takes place in a supervised workshop/site environment. Standard and site-specific safe working practices must be learned and it is important that candidates adhere to these at all times.

During the process of practical work the candidate will become accustomed to the use of brickwork terms and will be able to demonstrate knowledge and understanding of these terms in everyday practice. This will help discussions of technical matters with tutors.

The main content of the Unit will be learning the preparatory skills required in measuring, setting out and building small-scale, one-brick walls. Candidates should be taught good working practices at each stage and should learn how to carry out quality checks on their own work throughout the task and on completion.

There are a number of standard brickwork bonds that can be employed in one-brick walling. Candidates should be shown a number of these, including: English Bond, Flemish Bond, English Garden Wall Bond and Flemish Garden Wall Bond. Candidates should be given opportunity to practice building walls using each of these brick bonds which are, by nature, more complex than simple half-brick thick 'stretcher' bond.

Candidates should be encouraged to use and develop techniques suited to their own physical strength and abilities. This might include the use of small trowels to spread mortar and the use of light weight bricks (for example, London Brick (LBC) commons).

Outcome 1 requires the candidate to select tools, and to use, clean and maintain them correctly. Materials used will almost exclusively be common bricks and an appropriate mortar. It is recommended that a lime/sand mortar is employed to facilitate the reuse of materials. The bricklayers' trowel will be the prime tool that candidates will use to build the walls, but they should also learn how to use builders' line and other small tools where appropriate.

Outcome 2 entails skills in measuring and setting out for subsequent building of brick walls. This task requires the reading of drawings, use of tape measures, chalk and, where appropriate, setsquare. This task requires the calculating of the lengths of walls and transferring this information to the workshop floor. Candidates must be made aware of the tolerances that will be acceptable for this task and will be allowed to practise particular skills until they have become competent in them to the standards required.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: One Brick Walling (Intermediate 2)

Outcome 3 requires the candidate to build short lengths of one-brick wall. Care will be taken in the application of mortar to beds and joints and the dimensions of the beds and joints. Care must be taken to keep the wall face clean of mortar. Candidates will learn how to point the brickwork beds and joints to provide a finished face to a brick wall.

The overall wall must in each case be built to given standards and tolerances. Candidates will, themselves, carry out a quality check on their walls against the tolerances given.

In addition to the vocational content of this Unit, candidates should be encouraged to develop the general skills and attitudes that are valued by construction employers. These employability skills should be taught as an integral part of the Unit. Opportunities will arise in various practical contexts to discuss the value of, for example: time-keeping; working co-operatively and working in small teams; planning for practical activities; thorough preparation; taking advice; showing appreciation of health and safety issues and maintaining a clean, tidy and organised workplace.

Candidates should learn about waste minimisation and sustainability. In a practical way they can contribute to this by careful use of materials and by promptly returning surplus materials to the store.

Relevant aspects of current health and safety legislation, current COSHH (Control of Substances Hazardous to Health) Regulations and any systems of work relevant to the workshop/workplace should be explained to candidates. It is important that the legislation is adhered to as part of the work of this Unit. Candidates should be encouraged to be clean, presentable and appropriately dressed for the workshop. The wearing of Personal Protective Equipment (PPE) including protective clothing when required should be emphasised.

If candidates are taking this Unit as part of the *Intermediate 2 Construction Crafts Course* they may be required to carry out basic risk assessments for brickwork activities or workspaces.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Experiential learning is the main approach recommended for this Unit. This involves learning through practical experiences and activities. Candidates should experience actual or simulated workplace conditions and should be encouraged to perform tasks and conduct themselves in a manner appropriate to the workplace.

Experiential learning also involves reflecting on experiences/activities, identifying not just strengths but also areas for improvement. It is important to encourage candidates throughout this brickwork Unit to evaluate their own work and progress. They should be encouraged to seek advice and set themselves goals, building both confidence and competence in undertaking tasks.

Candidates undertaking this Unit at Intermediate 2 with little or no prior experience of practical brickwork may benefit from extra practice in dry bonding exercises. They may also benefit from tutoring in one particular aspect of basic half-brick walling — the return corner. This exercise will permit them to move with confidence to the comparatively more complex work found in one-brick walls, and in particular, for example, the one-brick thick return corner.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: One Brick Walling (Intermediate 2)

Candidates will be helped to evaluate their practical brickwork skills by learning how to use checklists. These will detail measurable standards and tolerances to which the candidate should compare his/her own brickwork exercises. Candidates should learn how to use a gauge rod in checking brick courses against tolerance. The construction industry is very keen on producing work that is 'right first time' and quality checks are an inherent part of the work in the industry. Candidates can be encouraged to approach their work with care and build in a checking process as part of good practice.

Candidates will also require constructive feedback on peripheral aspects of the brickwork task such as the transporting of tools and materials to the workspace, the planning and setting out of the work area and use of the trowel and other tools. Often such feedback is best delivered on a one-to-one basis.

Responsible, safe behaviours in the workplace can be demonstrated and practised as part of the essential work for routine example: candidates will learn that a build-up of brick debris around the workspace could be a tripping hazard (this may be particularly applicable for one-brick walling exercises as opposed to half-brick walling exercises because potentially twice the amount of debris could be left lying around). They will learn how to use hand tools and equipment in a safe manner and how to clean and maintain them. The daily routine in the workplace will include maintaining a clean and tidy workspace. The candidates should learn that they have a certain routine to follow as far as health and safety is concerned.

Opportunities for developing aspects of Core Skills should be incorporated where they arise naturally in the learning and teaching process. In this Unit, candidates will make calculations in setting out brickwork and in estimating the amount of brickwork materials required for particular exercises. They will also calculate lengths, heights and thicknesses in brick walls, and check work against prescribed tolerances. These are good opportunities for developing aspects of Numeracy.

Candidates will read instructions for work activities, including annotations on drawings and specifications of materials. They will also take part in discussions with peers and tutors regarding work activities, materials, and use of tools, workshop protocol and the interpretation of drawings. These activities present opportunities for developing aspects of Communication.

Where this Unit is taken alongside the *Intermediate 2 Construction Crafts: Employability Skills Unit*, candidates will have additional opportunities to develop an awareness of the general employability skills and attitudes which employers value. Integrated activities will involve the candidate assessing his/her own performance on time-keeping, attendance, taking instructions, seeking advice, planning and preparation, working co-operatively with others and general attitude to learning. Candidates should seek the views of tutors/supervisors and will identify areas for improvement. They should take responsibility for action plans. These activities will all add value to the candidate's experience and help to enhance employability.

Outcome 1 should be integrated with Outcomes 2 and 3. Candidates can naturally select, use and maintain hand tools, equipment and materials when carrying out practical brickwork tasks. Where it is possible to do so, underpinning knowledge should be integrated with practical activities in the workshop or project area. Nevertheless, underpinning knowledge is not assessed separately in this Unit. Applied knowledge is assessed by observation as candidates complete each practical task.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: One Brick Walling (Intermediate 2)

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

It is expected that candidates will be given as much practice as possible in bricklaying techniques, prior to being set the assessment tasks. This is important when candidates are working on walls of one brick thick or more because the candidates must be confident and competent in dealing with brick bonding significantly different to that encountered in half-brick walling. In particular, candidates need to practise one-brick exercises dealing with English bond, English Garden Wall bond, Flemish bond and Flemish Garden Wall bond. The Evidence Requirements for the Unit detail the quality and quantity of brickwork to be produced for the Unit assessment.

The NAB item contains brickwork exercises and assessor observation checklists.

The NAB requires that brickwork exercises be completed to prescribed standards and tolerances. Tolerances required by the NAB are significantly less stringent than those required by National Occupational Standards. Nevertheless, the use of tolerances in this way introduces candidates to the kind of quality regime they will experience if and when they pursue a career as a bricklayer in the construction industry.

Assessors are required to check the quality of candidates' work against prescribed standards and tolerances. Candidates themselves are required to carry out a quality check on their brickwork against these same standards. It is recommended that candidates be allowed to carry out their own quality check **prior** to the assessor's check. It is further recommended that centers allow sufficient time in assessment sessions to permit this checking of practical work by both candidate and assessor. This is important because it is unlikely, in most centers, that brickwork models can be retained from one workshop session to the next.

Assessor observation checklists and other assessment records should be maintained and kept up to date to keep track of candidate progress and to provide evidence for internal and external moderation purposes. The NAB for this Unit provides an assessor observation checklist.

Centres may develop their own instruments of assessment but these must be of a comparable standard to the NAB. Pre-moderation of own instruments of assessment by SQA is strongly recommended.

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

National Unit Specification: general information

UNIT Construction Crafts: Bench Joinery (Intermediate 2)

CODE DX0J 11

COURSE Construction Crafts (Intermediate 2)

SUMMARY

This Unit is a mandatory Unit within the *Intermediate 2 Construction Crafts Course* and has been designed to be taken as part of that Course.

The Unit is suitable for candidates with no previous bench joinery experience and may also provide progression for candidates who have successfully completed the *Intermediate 1 Construction Crafts Course* or Units.

The Unit is based on practical workshop activities. It requires the candidate to fabricate a dressed timber frame. The timber frame will employ a variety of different constructional joints and candidates will spend some time in mastering the techniques involved in cutting and shaping timber to form such joints. The complexity of jointing techniques employed in this Unit will allow candidates who have prior experience of bench joinery at Intermediate 1 level to extend their skills.

Candidates will be required to correctly select and properly maintain tools for joinery activities. They will also develop safe working practices and general skills that will enhance employability in any vocational area.

Candidates who achieve this Unit should feel confident in widening their experience in joinery by taking other Intermediate 2 Units in this trade area.

OUTCOMES

- 1 Select, use and manage hand tools, equipment and materials.
- 2 Fabricate a variety of timber joints.
- 3 Manufacture a dressed timber frame.

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National Unit Specification: general information (cont)

UNIT Construction Crafts: Bench Joinery (Intermediate 2)

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have attained one of the following, or equivalent:

- ◆ *Intermediate 1 Construction Crafts: Site Carpentry and Bench Joinery Unit*
- ◆ *Intermediate 1 Construction Crafts: Carpentry and Joinery Techniques Unit*

CREDIT VALUE

1 credit at Intermediate 2 (6 SCQF credit points at SCQF level 5*).

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

There is no automatic certification of Core Skills in this Unit.

Opportunities for developing aspects of Core Skills are highlighted in *Guidance on Learning and Teaching Approaches for this Unit*.

National Unit Specification: statement of standards

UNIT Construction Crafts: Bench Joinery (Intermediate 2)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

OUTCOME 1

Select, use and manage hand tools, equipment and materials.

Performance Criteria

- (a) Selection of tools, equipment and materials is appropriate for the work to be carried out.
- (b) Tools, equipment and materials are handled and transported correctly.
- (c) Tools, equipment and materials are positioned correctly in the work area in accordance with good practice.
- (d) Tools, equipment and materials are stored correctly after use.
- (e) Health and safety requirements are complied with during all activities.

OUTCOME 2

Fabricate a variety of timber joints.

Performance Criteria

- (a) Machine dressed materials are marked out to given sizes and within a prescribed tolerance.
- (b) Materials are converted to given sizes using a range of hand tools to within prescribed tolerances.
- (c) A variety of jointing exercises is carried out using hand tools to prescribed tolerances.
- (d) A quality check is carried out on the finished work against the prescribed standards and tolerances.

OUTCOME 3

Manufacture a dressed timber frame.

Performance Criteria

- (a) A workshop rod is produced for a given frame design and within prescribed tolerances.
- (b) Frame components are marked out accurately prior to tool application, and within prescribed tolerances.
- (c) Frame is assembled and fixed to a given specification, prescribed standards and tolerances.
- (d) A quality check is carried out on the finished work against the prescribed standards and tolerances.
- (e) Health and safety requirements are complied with during all activities.

National Unit Specification: statement of standards

UNIT Construction Crafts: Bench Joinery (Intermediate 2)

EVIDENCE REQUIREMENTS FOR THIS UNIT

Performance evidence is required to show that all Outcomes and Performance Criteria have been achieved.

Performance evidence will be supported by an assessor checklist. This evidence will be generated from an integrated assignment consisting of practical activities carried out in supervised workshop conditions. The evidence may be gathered at different points throughout the Unit. The practical activities will cover:

- ◆ selecting the correct tools, equipment and materials for particular tasks
- ◆ transporting tools, equipment and materials and positioning them correctly between tasks
- ◆ using the tools and equipment in a correct and safe manner and using them solely for the purpose for which they are designed
- ◆ storing tools and equipment correctly after use
- ◆ returning surplus materials to store correctly
- ◆ production of a suitable workshop rod and within given tolerances
- ◆ measuring out accurately and setting out the lengths of timber required in the fabrication of the frame
- ◆ marking, cutting, shaping and jointing of timbers correctly and within given tolerances
- ◆ constructing to prescribed tolerances, a jointed timber frame incorporating a minimum of two of the following joint types: a bridle joint, a through mortice and tenon joint, a corner halving, a through haunched mortice and tenon joint and a stub tenon joint
- ◆ candidates carrying out a quality check on their own work before submitting for final assessment
- ◆ candidates maintaining a clean and tidy workplace and adhering to health and safety requirements throughout all activities

The NAB item for this Unit provides an assessor checklist and details of the practical assignment which exemplify the national standard. Centres wishing to develop their own assessments should refer to the NAB to ensure a comparable standard.

National Unit Specification: support notes

UNIT Construction Crafts: Bench Joinery (Intermediate 2)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

The content in this Unit covers practical joinery activities at an introductory level. The candidate will learn how to make a variety of standard joints in dressed timber. To this end they must develop the ability to select and use a variety of tools and equipment correctly and safely. It is therefore important that the learning takes place in a supervised workshop/site environment.

During the process of practical work the candidate will become accustomed to the use of joinery terms and will be able to demonstrate knowledge and understanding of these terms in everyday practice.

A number of joints will be used in the manufacture of the frame for Outcome 3. These may include a bridle joint, a through mortice and tenon joint, a corner halving, a through haunched mortice, a tenon joint and a stub tenon joint. A minimum of two joints will be used for assessment purposes, but candidates will learn how to fabricate a wider range of joints during this Unit.

Candidates should be taught good joinery working practices for each stage of the overall process. They should learn how to carry out a quality check on their own work at intermediate stages as well as at the completion of the end product. The exercises on timber joints (Outcome 2) should be viewed as an integral part of the ultimate end product — the dressed timber frame. In this way the interim checks will go a long way to ensuring a satisfactory overall exercise.

It is envisaged that a number of candidates may have little or no experience of working with the range of tools and materials associated with this Unit. Some candidates may have experience of carpentry and joinery work at Intermediate 1, but a number may be starting their joinery experience with this Intermediate 2 Unit. For the latter group of candidates it is important to ensure that they appreciate the reasons for carrying out the various tasks in the manner directed by teachers/lecturers. They will learn the reasons for using specific tools for specific materials. They will also learn the value of good health and safety practice in joinery work and the importance of Personal Protective Equipment (PPE).

Candidates should become aware of the importance of being considerate to others and of working in a safe and methodical manner. The maintenance of a clean and tidy work area includes the positioning of tools and materials before, during and after use.

Candidates should learn about waste minimisation and sustainability. In a practical way they can contribute to this by careful use of materials and by promptly returning surplus materials to the store.

Outcome 1 requires the candidate to select tools, and to handle, transport, position, and store both tools and materials. Materials used will, almost exclusively, be pre-dressed softwoods. Tools and equipment likely to be used will include: setting out tools, clamps, square and pencil, marking gauge, mortice gauge, claw hammers, saws, chisels, the hand plane and hand drills.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Bench Joinery (Intermediate 2)

Outcome 2 entails skills in marking, sawing, planning, chiselling and, depending on the technique adopted, the boring of timbers. These tasks require the use of several different hand tools. Candidates will practise these individual skills separately before bringing them all together in the fabrication of the frame in the overall practical task for the Unit. Candidates must be made aware of the tolerances that will be acceptable for each aspect of the task and allowed to practise particular skills until they have become competent in them to the standards required.

Outcome 3 should enable the candidate to bring together the skills learned in the first two Outcomes as they carry out a bench work exercise involving the construction of a dressed softwood frame. The joints in the frame should be made to the required standard and the complete assembly should be solid and well constructed. The assessment task calls for a variety of joinery skills due to the fact that the frame requires different jointing techniques to be used on the same end product.

Where the Unit is taken alongside the *Intermediate 2 Construction Crafts: Employability Skills Unit*, candidates should be encouraged to develop the general skills and attitudes that are valued by construction industry employers and indeed employers in other industries. These general skills and attitudes should be taught as an integral part of the Unit. Opportunities will arise in various practical contexts to discuss the value of, for example: time-keeping; working co-operatively and in small teams; taking advice; following prescribed health and safety systems; maintaining a clean, tidy and organised workplace. Candidates will also learn how to carefully pre-plan their work tasks, subdividing these up into discrete sub-tasks as and when required.

Relevant aspects of current health and safety legislation, current COSHH Regulations and any systems of work relevant to the candidates' workshop/workplace should be explained and adhered to as part of the work of this Unit. Candidates should be helped to appreciate the requirement to be clean, presentable and appropriately dressed for the workshop. The need to wear PPE including protective clothing when required should be emphasised.

If candidates are taking this Unit as part of the *Intermediate 2 Construction Crafts Course* they may be required to carry out basic risk assessments for joinery activities or workspaces.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Experiential learning is the main approach recommended for this Unit. This involves learning through practical experiences and activities. Candidates should experience actual or simulated workplace conditions and should be encouraged to perform tasks and conduct themselves in a manner appropriate to the workplace.

Experiential learning also involves reflecting on experiences/activities, identifying strengths and areas for improvement. It is important to encourage candidates throughout the Unit to evaluate their own work and progress. They should be encouraged to seek advice and set themselves goals to build confidence and competence in undertaking tasks.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Bench Joinery (Intermediate 2)

Candidates undertaking this Unit at Intermediate 2 with little or no prior experience of bench joinery may benefit from carefully planned tutorial exercises based on the correct use of basic hand tools. Once they have gained confidence and some proficiency in the basics they may move with confidence to the jointing exercises required by this Unit. Recognised working practices should be fully explained, demonstrated and practised. This includes correct manual handling techniques and posture when using tools.

Teaching candidates how to compare their own work with given standards will help them to evaluate their joinery skills. Checking standards of work against prescribed tolerances is a very useful skill and habit that candidates can develop during their work. For example, learning how to use a retractable steel tape to check dimensions against tolerance would be helpful for candidates. The construction industry is very keen on producing work that is 'right first time' and quality checks are an inherent part of the work in the industry. Candidates can be encouraged to approach their work with care and build in a checking process as part of good practice.

Candidates will require constructive feedback on peripheral aspects of joinery such as the safe transporting of tools, equipment and materials to the workspace and the planning and setting out of the work bench. Often such feedback is best delivered on a one-to-one basis.

In this Unit there are many opportunities to build up an understanding of the behaviours and practices required of employees and employers. Responsible, safe behaviours in the workplace can be demonstrated and practised as part of the work routine. For example: candidates will learn that a build-up of timber off-cuts around the workspace could be a tripping hazard; they will learn how to use hand tools and equipment in a safe manner and how to clean and maintain them. Daily routines in the workplace will include maintaining a clean and tidy workspace.

Opportunities for developing aspects of Core Skills should be incorporated where they arise naturally in the learning and teaching process. In this Unit, candidates will make simple calculations in requisitioning materials with allowance for waste and cutting. Accurate measurement is required for cutting materials to prescribed or 'to fit' lengths. Candidates may also measure various 'check' dimensions as verification of a correctly manufactured overall frame. These are good opportunities for developing aspects of Numeracy.

Candidates will read instructions for work activities, including the specifications of materials required for the practical activity. They will also take part in discussions with peers and tutors regarding work tasks, interpretation of drawings, materials, use of tools and workshop protocol. These activities present opportunities for developing aspects of Communication Skills.

Where this Unit is taken alongside the *Intermediate 2 Construction Crafts: Employability Skills Unit* candidates will have additional opportunities to develop an awareness of the general employability skills and attitudes which employers value. This may involve the candidate assessing his/her own performance on time-keeping, attendance, taking instructions, seeking advice, planning and preparation, working co-operatively with others and, critically, on their general attitude to learning. Candidates will also seek the views of tutors/supervisors and will identify areas for improvement and take responsibility for action plans. These activities will add value to the candidate's experience and help to enhance employability.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Bench Joinery (Intermediate 2)

Outcome 1 should be integrated with Outcomes 2 and 3. Candidates can naturally select, use and manage hand tools, equipment and materials when carrying out practical joinery tasks. Where it is possible to do so, underpinning knowledge should be integrated with practical activities in the workshop or project area. Nevertheless, underpinning knowledge is not separately assessed in this Unit. Applied knowledge is assessed by observation as candidates complete each practical task.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

It is expected that candidates will be given as much practice as possible in joinery techniques prior to being set the assessment tasks. As the ability to correctly manufacture joints is central to the completion of the overall task, it makes sense that a significant proportion of the time in this Unit is devoted to practising the manufacture of a variety of joint types and checking these against the prescribed standards and tolerances.

Candidates may have some basic knowledge of timber joints when they start this Unit. Nevertheless, it is unlikely that they will have prior experience of the relatively specialist jointing techniques found in this Unit.

The jointing techniques can be assessed discretely as Outcome 2. However, it is recommended that assessment of all three Outcomes is carried out as a single integrated exercise, even if it encompasses a number of workshop sessions.

The Evidence Requirements for the Unit detail the quality and quantity of work to be produced for the Unit assessment. The Performance Criteria require that joinery exercises be completed to prescribed standards and tolerances. The tolerances required by the assessment task are significantly less stringent than those required by National Occupational Standards. Nevertheless, such use of tolerances introduces candidates to the kind of quality regime they will experience if and when they pursue a career as a joiner or other tradesperson in the construction industry.

Assessor observation checklists and other assessment records should be maintained and kept up to date to keep track of candidate progress and to provide evidence for internal and external moderation purposes. The NAB for this Unit provides an observation checklist.

Centres may develop their own instruments of assessment but these must be of a comparable standard to the item. Pre-moderation of own instruments of assessment by the SQA is strongly recommended.

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

National Unit Specification: general information

UNIT	Construction Crafts: Plumbing of Sanitary Appliances (Intermediate 2)
CODE	DX0T 11
COURSE	Construction Crafts (Intermediate 2)

SUMMARY

This Unit is an optional Unit within the *Intermediate 2 Construction Crafts Course* and has been designed to be taken as part of that Course.

The Unit is suitable for candidates with no previous plumberwork experience and may also provide progression for candidates who have successfully completed the *Intermediate 1 Construction Crafts Course* or Units.

The Unit is based on practical workshop activities which involve the assembly and installation of a significant piece of standard sanitaryware such as a kitchen sink, a wash hand basin or a WC. Candidates will also install, connect and fix associated pipework to the sanitary appliances. Candidates will select and use of a range of relevant plumberwork tools and materials and develop safe working practices and general skills that will prepare them more fully for the workplace.

Candidates who achieve this Unit should feel confident in widening their experience in plumberwork by taking other Intermediate 2 Units in this trade area.

OUTCOMES

- 1 Select, use and maintain plumbing tools and materials.
- 2 Assemble, fit and fix a sanitary appliance.
- 3 Install pipework to a sanitary appliance.

Administrative Information

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National Unit Specification: general information

UNIT Construction Crafts: Plumbing of Sanitary Appliances (Intermediate 2)

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have attained one of the following, or equivalent:

- ◆ *Intermediate 1 Construction Crafts: Plumbing Unit*
- ◆ *Intermediate 1 Construction Crafts: Practical Copper Pipework Unit*

CREDIT VALUE

1 credit at Intermediate 2 (6 SCQF credit points at SCQF level 5*).

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

There is no automatic certification of Core Skills in this Unit.

Opportunities for developing aspects of Core Skills are highlighted in *Guidance on Learning and Teaching Approaches for this Unit*.

National Unit Specification: statement of standards

UNIT Construction Crafts: Plumbing of Sanitary Appliances (Intermediate 2)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

OUTCOME 1

Select, use and maintain plumbing tools and materials.

Performance Criteria

- (a) Selection of tools and materials is appropriate for the work to be done.
- (b) Tools are used in the correct manner.
- (c) Tools are used solely for the purpose which they are intended.
- (d) Tools are cleaned, maintained and stored correctly.
- (e) Surplus materials are carefully stored correctly.
- (f) Health and safety requirements are complied with during all activities.

OUTCOME 2

Assemble, fit and fix a sanitary appliance.

Performance Criteria

- (a) The appliance is assembled in accordance with manufacturer's instructions.
- (b) The assembled appliance is free from damage and excessive marking.
- (c) The appliance is positioned correctly, levelled and secured in accordance with manufacturer's instructions.
- (d) Associated fittings are fitted and fixed in accordance with manufacturer's instructions.
- (e) A quality check is carried out on the finished work against prescribed standards and tolerances.
- (f) Health and safety requirements are complied with during all activities.

OUTCOME 3

Install pipework to a sanitary appliance.

Performance Criteria

- (a) Pipe material and associated fittings are selected correctly for a given appliance and location.
- (b) Pipework is free from excessive marking.
- (c) Pipework is cut square and free from burrs.
- (d) Pipework is completed using appropriate fittings and in accordance with current industry practice.
- (e) A quality check is carried out on the finished work against the prescribed standards tolerances.
- (f) Health and safety requirements are complied with during all activities.

National Unit Specification: statement of standards (cont)

UNIT Construction Crafts: Plumbing of Sanitary Appliances (Intermediate 2)

EVIDENCE REQUIREMENTS FOR THIS UNIT

Performance evidence is required to show that all Outcomes and Performance Criteria have been achieved.

Performance evidence will be supported by assessor observation checklists. This evidence will be generated from assignments consisting of practical activities carried out in supervised workshop conditions. The evidence may be gathered at different points throughout the Unit. The practical activities will cover:

- ◆ selecting appropriate tools
- ◆ using tools in a correct manner and solely for the purpose for which they are intended
- ◆ cleaning, maintaining and returning tools to store on completion
- ◆ selecting appropriate materials
- ◆ carefully storing surplus materials correctly
- ◆ assembling, fitting, positioning and fixing **one** sanitary appliance in accordance with manufacturer's instructions
- ◆ fitting and fixing associated fittings to the sanitary appliance
- ◆ measuring, cutting, fitting and fixing associated pipework to sanitary appliance in accordance with good practice (both plastic and copper pipework to be covered and each service to a length not exceeding 3 metres; the copper pipework to include forming bends)
- ◆ carrying out a quality check on completed work before submitting for final assessment
- ◆ maintaining a clean and tidy workplace and adhering to health and safety requirements throughout all activities

The NAB item for this Unit provides an assessor checklist and details of the practical assignments to exemplify the national standard. Centres wishing to develop their own assessments should refer to the NAB to ensure a comparable standard.

National Unit Specification: support notes

UNIT Construction Crafts: Plumbing of Sanitary Appliances (Intermediate 2)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

The content in this Unit covers plumbing work activities at an introductory level, however, candidates will be working with full-size kitchen and bathroom appliances and the associated pipework they will carry out is realistic in nature. The sanitary appliances will be fixed in position and the pipework will have to be carefully planned and accurately installed in order to connect to the fixed position of the appliances.

In this Unit the candidate is required to develop the ability to select and use tools correctly and safely. At Intermediate 2 candidates will use a variety of tools. It is therefore important that the learning takes place in a supervised workshop/site environment as safe use of tools is an important aspect of this Unit.

Candidates with little or no prior experience in plumbing crafts work will benefit from practice in pipework cutting, bending and jointing exercises. Once they have gained some proficiency in these tasks they can proceed to the more specific tasks required of the Unit.

During the process of practical work the candidate will become accustomed to the use of plumberwork terms and will be able to demonstrate knowledge and understanding of these terms when carrying out practical plumbing tasks. The main content of the Unit will be learning the methods and skills required to assemble, fit and fix an item of sanitaryware with associated fittings and pipework, all in accordance with given drawings or manufacturer's instructions. Candidates should be taught good working practices at each stage and should learn how to carry out a quality check on their own work at suitable intervals and on completion.

Outcome 1 requires the candidate to select tools, and to handle, transport, position, and store both tools and materials. Materials used will include copper and plastic pipes and fittings and the sanitary appliances themselves along with their own particular fittings and fixings. Candidates will use standard plumbing tools and proprietary pipecutters.

Outcome 2 covers the assembly of sanitary appliances. This normally requires assembly in accordance with a particular manufacturer's instructions. However, having learned how to follow one set of instructions, candidates are likely to be in a good position to interpret instructions for a different appliance or the same type of appliance from a different manufacturer. Techniques in fixing appliances to wall and floor surfaces may differ according to the nature of the background or surface. Candidates should become familiar with a small variety of fixing types.

Outcome 3 requires the candidate to install pipework to the assembled and fixed sanitary appliance. Both copper and plastic pipework will be included. Candidates will learn the requirements for supply, waste and overflow pipes as is relevant to each appliance and will practise these installations. Sundry fittings such as valves should be included in pipework assemblies. Copper pipework installations will include forming bends in pipework. Care should be taken in the planning of pipework routes to the appliance and in measuring pipework to length for connections. Pipework will include joints in the running length as well as pipeclips as required. The overall pipework assembly must be built to given standards and tolerances. Candidates will carry out a quality check on their own work against the tolerances given.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Plumbing of Sanitary Appliances (Intermediate 2)

In addition to the vocational content in this Unit, candidates should be encouraged to develop the general work practices and attitudes which are valued by employers. These employability skills should be delivered as an integral part of the Unit. Opportunities will arise in various practical contexts to discuss the value of, for example, good time-keeping and attendance; thorough planning and preparation, working co-operatively and in small teams; acknowledging safe systems of work; maintaining a clean, tidy and organised workplace; checking own work to ensure it is of an appropriate standard; adopting a positive attitude to learning; demonstrating a willingness to follow instructions and taking a positive attitude to feedback on performance.

Candidates should learn about waste minimisation and sustainability. In a practical way they can contribute to this by careful use of materials and by promptly returning surplus materials to the store.

Relevant aspects of current health and safety legislation, current COSHH Regulations, manual handling legislation and any systems of work relevant to the candidates' workshop/workplace should be explained and adhered to as part of the work of this Unit. Candidates should be helped to appreciate the requirement to be clean, presentable and appropriately dressed for the workshop. The wearing of Personal Protective Equipment (PPE), including protective clothing when required, should be emphasised.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Experiential learning is the main approach recommended for this Unit. This involves learning through practical experiences and activities. For example, one of the key aspects of this Unit is that candidates learn how to use plumbing tools and materials in a correct and safe manner. This can best be achieved by candidates actually undertaking practical plumbing activities in a supervised workshop environment.

Experiential learning also involves reflecting on experiences/activities, identifying strengths and areas for improvement. It is important to encourage candidates throughout this plumbing Unit to evaluate their own work and progress. They should be encouraged to seek advice and set themselves goals to build confidence and competence in undertaking tasks. Teaching candidates how to use checklists containing realistic standards and tolerances will help them to evaluate their practical plumbing skills. They will also require constructive feedback on peripheral aspects of the plumberwork task such as using tools, planning and setting out the work area and health and safety procedure. Often such feedback is best delivered on a one-to-one basis.

Candidates who undertake this Unit at Intermediate 2 with little or no prior experience of practical plumberwork may benefit from extra practice in pipe jointing exercises. They should learn how to cut, bend and connect pipework as well as the work in connection with the installation of sanitary appliances. The time taken developing competence in the different aspects of pipe installations will permit candidates to move with confidence to the more complex work in fabricating pipework installations for a fixed kitchen or bathroom appliance.

Checking standards of work against prescribed tolerances is a very useful skill and habit that candidates will develop during the Unit. For example, in undertaking various plumbing practical exercises, candidates should check that all work is completed accurately and within measured tolerances. The construction industry is very keen on producing work that is 'right first time' and quality checks are an inherent part of the work in the industry. Candidates can be encouraged to approach their work with care and build in a checking process as part of good practice.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Plumbing of Sanitary Appliances (Intermediate 2)

During the delivery of this Unit candidates should be encouraged to learn and use common plumbing terms with a view to helping them remember these terms. This will help discussions of technical matters with tutors.

Individual candidates should be encouraged to use and develop techniques suited to their own physical strengths and abilities. Nevertheless, good trade practice should be emphasised at all times.

It is recommended that, prior to candidates commencing any practical activity, that the teacher/lecturer demonstrates the correct and safe way to undertake the activity. Candidates should also be provided with simple diagrammatic drawings of exercises to assist them in undertaking these practical tasks.

Responsible, safe behaviours in the workplace can be demonstrated and practised as part of the essential work routine, for example: candidates will learn that leaving plumbing tools, equipment and materials randomly around a workspace could be a tripping hazard. Candidates will learn how to use tools and equipment in a safe manner and the correct ways to clean and maintain tools. Daily routines in the workplace will include ongoing hazard identification and the maintenance of a clean and tidy workspace.

Opportunities for developing aspects of Core Skills should be incorporated where they arise naturally in the teaching and learning process. For example, candidates will be required to read instructions for work activities, including information about different materials and jointing compounds; they will also take part in discussions with peers and tutors regarding work activities, interpretation of drawings, materials, use of tools and workshop protocols. They will need to demonstrate, at all times, clear and courteous communication with their peers, supervisors and technicians. All of these activities present opportunities for developing oral and reading communication skills.

Opportunities for developing other aspects of Core Skills will arise when candidates measure and cut pipes and make allowances for the length of fittings. It will be particularly important to get measurements to fixed positions correct. These will include dimensions to fixed appliances such as the waste outlet or incoming cold water connection for a wash hand basin. These are all aspects of Numeracy.

Sanitary appliances are sometimes awkward to manually handle and manoeuvre into position. This may require two or more people to cooperate in lifting the appliance and provide opportunity to develop skills in Working with Others.

Where this Unit is taken alongside the *Intermediate 2 Construction Crafts: Employability Skills Unit*, candidates will have additional opportunities to develop an awareness of the general work practices and attitudes that employers value. Integrated activities will involve the candidate assessing his/her own performance on time-keeping and attendance, planning and preparation, working co-operatively and in teams, maintaining a tidy and safe work area, checking own work, demonstrating a positive attitude to learning, showing a willingness to follow instructions and responding positively to feedback on performance. Candidates will also seek the views of teachers/lecturers and will identify areas for improvement and take responsibility for action plans. These activities will add value to the candidate's experience and help to enhance employability.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Plumbing of Sanitary Appliances (Intermediate 2)

Outcome 1 should be integrated with Outcomes 2 and 3. Candidates can naturally select, use and manage hand tools, equipment and materials when carrying out practical plumberwork tasks. Where it is possible to do so, underpinning knowledge should be integrated with practical activities in the workshop or project area. Nevertheless, underpinning knowledge is not separately assessed in this Unit. Applied knowledge is assessed by observation as candidates complete each practical task.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

It is expected that candidates will be given as much practice as possible in practical plumbing techniques prior to being set the assessment tasks. This is important in this Unit because candidates are dealing with sizeable kitchen or bathroom appliances and if they are incorrectly handled or not fixed correctly the whole exercise could be jeopardised and even be hazardous.

The Evidence Requirements for the Unit detail the quality and quantity of practical work to be produced for the Unit assessment. Standards required from the assessment tasks are significantly less onerous than those required by National Occupational Standards. Nevertheless, such an approach introduces candidates to the kind of quality regime they will experience if and when they pursue a career as a plumber in the construction industry.

The assessment of all three Outcomes can be integrated since completing the practical activities required for Outcomes 2 and 3 also provides evidence that candidates can meet the requirements of the Outcome 1 regarding the selection and use of tools, equipment and materials.

Examples of the kind of activities that could be used for the assessment of this Unit would be the assembly, fitting and fixing of **one** of the following:

- ◆ a wash hand basin
- ◆ a kitchen sink
- ◆ a shower tray and showerhead
- ◆ a WC complete with pan and cistern

In each case the relevant standard fittings would be fitted by the candidate. For example, the wash hand basin would require a waste, handwheels (taps) and a plug and chain.

Candidates would also be required to install and connect the soil or waste pipework or overflow where applicable, plus one other piped service to the appliance, for example, the cold supply or hot supply.

Assessor observation checklists and other assessment records should be maintained and kept up to date to keep track of candidate progress and to provide evidence for internal and external moderation purposes. The NAB for this Unit provides an assessor observation checklist.

Centres may develop their own instruments of assessment but these must be of a comparable standard to the NAB. Pre-moderation of own instruments of assessment by the SQA is strongly recommended.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Plumbing of Sanitary Appliances
(Intermediate 2)

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

National Unit Specification: general information

UNIT	Construction Crafts: Decorative Painting Techniques (Intermediate 2)
CODE	DX0R 11
COURSE	Construction Crafts (Intermediate 2)

SUMMARY

This Unit is an optional Unit within the *Intermediate 2 Construction Crafts Course* and has been designed to be taken as part of that Course.

The Unit is suitable for candidates with no previous painterwork experience and may also provide progression for candidates who have successfully completed the *Intermediate 1 Construction Crafts Course* or Units.

The Unit is based on practical workshop activities. Candidates are required to form bands and lines as well as basic brush grained effects. The basic brush grained effect will have to be completed on a moulded panel and in correct sequence. Candidates will learn how to enlarge and transfer a given design and then paint it using free brush work and how to mix different colours to match given paint samples.

Candidates who achieve this Unit should feel confident to widen their experience in painting and decorating by taking other Intermediate 2 Units in this trade area.

OUTCOMES

- 1 Select, use and manage tools and materials.
- 2 Produce bands and lines in paint.
- 3 Produce a simple brush grained effect.
- 4 Enlarge a given design using freehand brushwork technique.
- 5 Mix different colours to match given paint samples.

Administrative Information

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National Unit Specification: general information (cont)

UNIT Construction Crafts: Decorative Painting Techniques (Intermediate 2)

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have attained one of the following, or equivalent:

- ◆ *Intermediate 1 Construction Crafts: Decorative Painting Unit*
- ◆ *Intermediate 1 Construction Crafts: Decorative Finishes Using Water-borne Paints Unit*

CREDIT VALUE

1 credit at Intermediate 2 (6 SCQF credit points at SCQF level 5*).

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

There is no automatic certification of Core Skills in this Unit.

Opportunities for developing aspects of Core Skills are highlighted in *Guidance on Learning and Teaching Approaches for this Unit*.

National Unit Specification: statement of standards

UNIT Construction Crafts: Decorative Painting Techniques (Intermediate 2)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

OUTCOME 1

Select, use and manage tools and materials.

Performance Criteria

- (a) Selection of tools is appropriate for the allocated work.
- (b) Selection and preparation of materials are in accordance with good practice.
- (c) Surplus materials are returned to store in accordance with good practice.
- (d) Tools are cleaned and maintained correctly.
- (e) Health and safety requirements are complied with during all activities.

OUTCOME 2

Produce bands and lines in paint.

Performance Criteria

- (a) Location of lines and bands are marked out on a pre-prepared surface to a designated pattern.
- (b) A flat surface is painted using a series of horizontal lines and bands to prescribed standards.
- (c) A quality check is carried out on the finished work against prescribed standards.
- (d) Health and safety requirements are complied with during all activities.

OUTCOME 3

Produce a simple brush grained effect.

Performance Criteria

- (a) A moulded panel is painted in a suitable ground coat colour to prescribed standards.
- (b) The moulded panel is brush grained in an appropriate colour, in a prescribed sequence and to given standards.
- (c) A quality check is carried out on the finished work against prescribed standards.
- (d) Health and safety requirements are complied with during all activities.

OUTCOME 4

Enlarge a given design using freehand brushwork technique.

Performance Criteria

- (a) A flat surface is painted in a ground coat colour to prescribed standards.
- (b) A given design is enlarged and transferred onto the surface to prescribed standards.
- (c) A quality check is carried out on the finished work against prescribed standards.
- (d) Health and safety requirements are complied with during all activities.

National Unit Specification: statement of standards (cont)

UNIT Construction Crafts: Decorative Painting Techniques (Intermediate 2)

OUTCOME 5

Mix different colours to match given paint samples.

Performance Criteria

- (a) Paints are mixed to match given colours to a prescribed standard.
- (b) A quality check is carried out on the finished work against prescribed standards.
- (c) Health and safety requirements are complied with during all activities.

EVIDENCE REQUIREMENTS FOR THIS UNIT

Performance evidence is required to show that all Outcomes and Performance Criteria have been achieved.

Performance evidence will be supported by an assessor observation checklist. This evidence will be generated from an integrated assignment consisting of practical activities carried out in supervised workshop conditions. The evidence may be gathered at different points throughout the Unit. The practical activities will cover:

- ◆ selecting the correct tools and materials for particular tasks
- ◆ using the tools in a correct and safe manner
- ◆ using tools solely for the purpose for which they are designed
- ◆ cleaning and storing tools correctly after use
- ◆ selecting and preparing materials for groundcoats in accordance with good practice
- ◆ select and preparing suitable graining colour, paints and stainers for the work in accordance with good practice
- ◆ returning surplus materials to store as required
- ◆ applying groundcoat colour to prescribed standards
- ◆ producing uniform graining, paint and stain effects to a prescribed standard
- ◆ marking out of lines and bands to a designated pattern
- ◆ producing a minimum of **six** horizontal lines and bands to a prescribed standard and using specified tools and equipment (each line or band to be of different width and a minimum 800 mm long)
- ◆ brush graining colour being appropriate to complement groundcoat colour
- ◆ carrying out of moulded panel work in a prescribed sequence to a panel of minimum overall size 600 x 600 mm
- ◆ enlarging and transferring of a given design to prescribed standards (pattern to be, as a minimum, doubled in size)
- ◆ mixing paints to match a minimum of **three** given colours to a prescribed tolerance or standard
- ◆ candidates carrying out a quality check on their own work before submitting for final assessment
- ◆ maintaining a clean and tidy workplace and adhering to health and safety requirements throughout all activities

The item for this Unit provides an assessor checklist and details of the practical assignment which exemplify the national standard. Centres wishing to develop their own assessments should refer to the NAB to ensure a comparable standard.

National Unit Specification: support notes

UNIT Construction Crafts: Decorative Painting Techniques (Intermediate 2)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

The content in this Unit covers decorative painting activities at an introductory level. The candidate is required to develop the ability to select and use tools and materials correctly and safely. It is therefore important that the learning takes place in a supervised workshop/site environment. Standard and workshop-specific safe working practices must be learned and it is important that candidates adhere to these at all times.

During the process of practical work, the candidate will become accustomed to the use of painterwork terms and will be able to demonstrate knowledge and understanding of these terms in everyday practice. This will help candidates discuss technical work with teachers/lecturers.

The main content of the Unit will be to learn the skills for preparing and applying uniform effects and regular lines, bands and patterns. Candidates should be taught good working practices at each stage and should learn how to carry out a quality check on their own work throughout the tasks and on completion.

One difference between this Unit and Units at Intermediate 1 is that candidates will be given greater freedom in selecting suitable and harmonious colours for decorative finishes. One of the Outcomes in this Unit specifically deals with the subject of colour matching.

Strong contrasts of value or colour between groundcoat and glazing colour should be avoided, as these will make it unnecessarily difficult for candidates to achieve visually acceptable broken-colour effects.

Candidates will cover a diverse range of skills in this Unit. They will learn the discipline of drawing lines and bands and the techniques that can be used to accomplish this. In addition they will learn a completely different discipline and skill in freehand brushwork.

Learning/teaching in this Unit should underline the importance of following correct sequencing when decorating moulded panels. The fact that this work must be accomplished with brushed grain effects adds to the complexity and discipline needed to complete this task.

Candidates should be able to recognise the range of tools, brushes and other equipment needed to produce a variety of decorative effects. They should know the difference between water-borne and solvent-borne materials, both for groundcoats and glazes and know the correct stainers and fillers to use with those materials.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Decorative Painting Techniques (Intermediate 2)

All work should be carried out on area of an appropriate size. For example, a hardboard sheet measuring 2440 mm by 1220 mm can be cut into six panels of approximately 813 mm by 610 mm. Such individual panels should be appropriate for most of the work in this Unit. Any panels from other materials, card or existing wall areas of similar size would be suitable. Moulded panel work could also be of this approximate overall size or can be accomplished by using sections of a moulded door or fixed wall panel arrangement.

Candidates should be made aware of the property of all coating known as ‘wet-edge time’ or ‘open-edge time’. Candidates need to learn how adept the operative has to be in order to produce a uniform broken-colour effect within the open-edge time of the coating. This can be learned at Intermediate 2 without the candidate having to study in depth the science and technology of paint drying. The emphasis for candidates here should be on the practice and techniques of decorative painting.

Outcome 1 requires the candidate to select tools, and to handle, transport, position, and store both tools and materials. Materials used will include ground coats and finishing coats. Candidates will use standard painterwork tools including a variety of brushes, rollers and paint pads. Candidates will also use sundry items such as masking tape and dust sheets.

Outcomes 2 to 5 inclusive cover a variety of decorative painting applications:

- ◆ Outcome 2 asks candidates to paint different bands and lines. Candidates may be familiar with the bands and lines that are found in the common areas of public buildings, sports facilities and tenement buildings.
- ◆ Outcome 3 requires the candidate to produce a simple brush grained effect, but on a surface that includes a moulded panel. A moulded panel door might be given as an example of such a surface.
- ◆ Outcome 4 asks candidates to enlarge and transfer a given design and point it using freehand brushwork. This may be accomplished by the use of grids as a reference between the original and the enlarged model, although other techniques are available and may be learned.
- ◆ For Outcome 5 candidates will learn how to mix paints to match given colours. These exercises should focus on matching shades of primary colours. Candidates will become aware of standard colour charts and their uses.

For all Outcomes involving practical work candidates will learn how to carry out a quality check on their work against the standards and tolerances applicable to each task.

In addition to the vocational content of this Unit, candidates should be encouraged to cultivate the general work practices and attitudes which are valued by construction industry employers. These employability skills should be delivered as an integral part of the Unit. Opportunities will arise in various practical contexts to discuss the value of, for example: good time-keeping and attendance; thorough planning and preparation; working co-operatively; appreciation of health and safety issues; the maintenance of a clean, tidy and organised workplace; checking own work to ensure it is of an appropriate standard; adopting a positive attitude to learning; demonstrating a willingness to take advice; following instructions.

Candidates should learn about waste minimisation and sustainability. In a practical way they can contribute to this by careful use of materials and by promptly returning surplus materials to the store.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Decorative Painting Techniques (Intermediate 2)

Relevant aspects of current health and safety legislation, current COSHH Regulations and any systems of work relevant to the candidates' to as part of the work of this Unit. Candidates should be helped to appreciate the importance of being clean, presentable and appropriately dressed for the workshop. This includes wearing Personal Protective Equipment (PPE) including protective clothing, gloves and barrier creams when required.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Experiential learning is the main approach recommended for this Unit. This involves learning through practical experiences and activities. Candidates should experience real or simulated workplace conditions and should be encouraged to perform tasks and conduct themselves in a manner appropriate to the workplace.

Experiential learning also involves reflecting on experiences/activities, identifying strengths and areas for improvement. It is important to encourage candidates throughout this Unit to evaluate their own work and progress. They should be encouraged to seek advice and set themselves goals to build confidence and competence in undertaking tasks.

Candidates who undertake this Unit at Intermediate 2 without prior experience of decorative painting may benefit from tutoring in basic brushwork techniques. Such exercises will permit them to move on with confidence and without much delay to the decorative finishes and techniques particular to this Unit.

Candidates will learn how to evaluate their practical painterwork skills by comparing their own work with given standards. This can be done using quality standards checklists. Quality criteria in painterwork are often descriptive as opposed to measurable and will require explanation to most candidates.

Checking standards of work is a very useful skill and habit that candidates can develop during their work. The construction industry is very keen on producing work that is 'right first time' and quality checks are an inherent part of the work in the industry. Candidates can be encouraged to approach their work with care and build in a checking process as part of good practice. For most decorative painterwork activities candidates can check their work at three distinct stages – preparation of surfaces, ground coating and finishing coats.

Candidates will also require constructive feedback on peripheral aspects of painterwork such as the safe transporting of tools and materials to and around the workspace, the planning and setting out the work area and the protecting of surrounding surfaces. Often such feedback is best delivered on a one-to-one basis.

Responsible, safe behaviours in the workplace can be demonstrated and practiced as part of the essential work routine, for example: candidates will learn that leaving paint tins, crumpled dust sheets, ladders and other equipment around the workspace could be a tripping hazard; they will learn how to use hand tools, brushes, paints and solvents in a safe manner and how to clean and maintain brushes and other tools. Daily routines in the workplace will include maintaining a clean and tidy workspace.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Decorative Painting Techniques (Intermediate 2)

Opportunities for developing aspects of Core Skills should be incorporated where they arise naturally in the teaching and learning process. In this Unit candidates will make simple calculations or estimates of the amount of groundcoat or finishing coat materials needed for practical activities. This presents an opportunity for developing aspects of Numeracy.

Candidates will need to read instructions for work activities, including safety information about different paints and solvents. They will take part in discussions with peers and tutors regarding work activities, interpretation of drawings, materials, use of tools and workshop protocols. They will possibly also have to collect the correct tools, equipment and materials from central stores and this may entail giving precise details to the person in charge of materials stores verbally or in writing. These activities present opportunities for developing oral and reading communication skills.

Candidates will have to learn how to interpret drawings and sketches showing the extent and pattern of decorative finishes for practical exercises. They will also have to learn how to read published colour charts and match colours in paint. Practical tutorial time on paint mixing and matching exercises will be time well spent.

Where this Unit is taken alongside the *Intermediate 2 Construction Crafts: Employability Skills Unit*, candidates will have additional opportunities to develop an awareness of the general work practices and attitudes which are valued by employers. Integrated activities will involve the candidate assessing his/her own performance on time-keeping and attendance, planning and preparation, working co-operatively, maintaining a tidy and safe work area, checking their own work, demonstrating a positive attitude to learning, showing a willingness to follow instructions and responding positively to feedback on performance. Candidates will seek the views of teachers/lecturers and will identify areas for improvement. They can take responsibility for action plans. These activities will add value to the candidate's experience and help to enhance employability.

Outcome 1 should be integrated with Outcomes 2 to 5 inclusive. Candidates can naturally select, use and manage hand tools and materials when carrying out practical painterwork tasks. Where it is possible to do so, underpinning knowledge should be integrated with practical activities in the workshop or project area. Nevertheless, underpinning knowledge is not separately assessed in this Unit. Applied knowledge is assessed by observation as candidates complete each practical task.

It may also be possible to integrate work in relation to Outcome 5 (mixing and matching of paint colours) with learning and teaching in the other practical Outcomes.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

It is expected that candidates will be given as much practice as possible in decorative painting and graining techniques, prior to being set the assessment tasks. This may be particularly important for candidates who, although demonstrating an aptitude and enthusiasm for practical activities, have little or no prior experience of decorative painting. Candidates who do have prior experience of decorative paintwork at Intermediate 1 will find that this Unit asks them to acquire either new skills or to employ previously gained skills in a different context.

Outcome 1 concerns general skills and knowledge in selecting materials, tools and equipment as well as aspects of health and safety that can be assessed as part of the work of the other four Outcomes.

National Unit Specification: support notes (cont)

UNIT Construction Crafts: Decorative Painting Techniques (Intermediate 2)

The Evidence Requirements for the Unit gives the details of the practical assignment to be produced for the Unit assessment. Standards required for the assessment tasks are significantly less onerous than those required by National Occupational Standards. Nevertheless, such an approach introduces candidates to the kind of quality regime they will experience if and when they pursue a career as a painter or decorator in the construction industry.

Assessor observation checklists and other assessment records should be maintained and kept up to date to keep track of candidate progress and to provide evidence for internal and external moderation purposes. The NAB for this Unit provides an assessor observation checklist.

Centres may develop their own instruments of assessment but these must be of a comparable standard to the NAB. Pre-moderation of own instruments of assessment by SQA is strongly recommended.

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).