

National Unit Specification: general information

UNIT Install and Connect Domestic Plumbing Appliances: An Introduction (Intermediate 2)

CODE F1L9 11

SUMMARY

This Unit is suitable for candidates who have had some experience in plumbing services, eg completion of the Unit Plumbing Services: An Introduction. This Unit will provide the candidate with valuable experience of working within a workshop environment and using tools applicable to the installation of a range of plumbing appliances used within a domestic simulated area in the plumbing industry. Candidates who complete this Unit can feel confident progressing further in the Construction Craft Industry.

OUTCOMES

- 1 Install a range of plumbing appliances.
- 2 Connect cold water supply.
- 3 Connect hot water supply.
- 4 Connect sanitary pipe work.

RECOMMENDED ENTRY

Whilst entry is at the discretion of the centre, it would be beneficial for the candidate to have attained the following of equivalent:

- ◆ Plumbing Services: An Introduction (Intermediate 1)
- ◆ Hot and Cold Water: An Introduction (Intermediate 2)
- ◆ Discharge Systems: An Introduction (Intermediate 2)
- ◆ Prepare and Assemble Plumbing Appliances (Intermediate 2)

Administrative Information

Superclass: TH

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Additional copies of this Unit Specification can be purchased from the Scottish Qualifications Authority. Please contact the Customer Contact Centre, telephone 0845 279 1000.

National Unit Specification: general information (cont)

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CREDIT VALUE

1 credit at Intermediate 2 level (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 are opportunities to develop the Core Skills of Problem Solving, Working with Others, Information Technology and Communication at SCQF level 4 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

National Unit Specification: statement of standards

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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

Install a range of plumbing appliances.

Performance Criteria

- (a) Select appropriate appliances for given installation.
- (b) Assemble appliance to manufacturer's instructions.
- (c) Ensure appliance is free from damage and excessive marking.
- (d) Ensure appliances are level and secured in accordance with manufacturer's instructions.
- (e) Health and Safety Legislation to be adhered to at all times.

OUTCOME 2

Connect cold water supply.

Performance Criteria

- (a) Select appropriate material and fittings for given installation.
- (b) Pipe work to be level, correctly secured, free from excessive marking and watertight.
- (c) Health and safety legislation is adhered to at all times.

OUTCOME 3

Connect hot water supply.

Performance Criteria

- (a) Select appropriate material and fittings for given installation.
- (b) Pipe work to be graded, correctly secured, free from excessive marking and watertight.
- (c) Health and safety legislation is adhered to at all times.

OUTCOME 4

Connect sanitary pipe work.

Performance Criteria

- (a) Select appropriate material and fittings for given installation.
- (b) Pipe work to be graded, secured and watertight.
- (c) Health and safety legislation is adhered to at all times.

National Unit Specification: statement of standards (cont'd)

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EVIDENCE REQUIREMENTS FOR THIS UNIT

Evidence is required to demonstrate that candidates have achieved all Outcomes and Performance Criteria.

Performance evidence supplemented with an assessor observation checklist/record should be used to show that the candidate has achieved the standard specified in the Outcomes and Performance Criteria. Evidence of actual performance is required to show that the candidate can install and select appropriate materials and fittings for the connection of:

- ◆ WC pan and cistern
- ◆ Wash hand basin

Using assessment information the candidate will be required to install the appliances to the manufacturers' instructions and connect to existing hot and cold water supplies, as well as a system of drainage, in order to carry out a performance test on their own practical work. The candidate should complete the pipe work exercise using appropriate jointing and pipe bending techniques with all pipe work being of sufficient length in order for the candidate to demonstrate the knowledge of standards relating to the securing of pipe work to surfaces ie bracket spacings.

Assessment of this Unit should be completed over a period of time and evidence should be gathered at appropriate intervals.

The Assessment Support Pack for this Unit provides sample assessment material. Centres wishing to develop their own assessments should refer to the Assessment Support Pack to ensure a comparable standard.

National Unit Specification: support notes

UNIT Install and Connect Domestic Plumbing Appliances: An Introduction (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

This Unit has been developed as an optional Unit in the National Progression Award in Construction and can also be delivered as a freestanding Unit.

The content and context of this Unit is aimed at candidates who are interested in pursuing a career within the plumbing industry. The study within this Unit should emphasis the development of the basic skills that provide a good foundation on which both the candidate and approved centres can build on during an apprenticeship training programme.

The aim of this Unit is to allow the candidate to demonstrate the knowledge and skills required to complete the installation of a range of plumbing appliances used within a domestic simulated area.

The learning environment for this Unit will mainly be workshop based learning. The knowledge element of this Unit can be taught in a classroom environment and put into practice in the workshop in conjunction with practical Outcomes.

Health and Safety and Sustainability are integral and key to the Construction Industry therefore throughout the Unit emphasis will be placed where appropriate on the application of Health and Safety and Sustainability. Safety working practices should be looked at in accordance with current safety codes of practice and regulations. Sustainability should include reference to criteria affecting sustainability, impact of not implementing sustainability on the environment and the legislation promoting sustainability

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

The teaching approach for this Unit will essentially be workshop based and would be desirable to offer the candidates practical demonstrations and simulated working systems. The candidate should be encouraged to become familiar with, and use, correct terminology within the construction industry. Centres are to provide clear and unambiguous working drawings and notes and to refrain from incorporating technical and complex plumbing systems, principles or technical terminology. This approach will provide the candidate with the knowledge and confidence required to progress with his/her chosen training and development.

This Unit is part of a program, which is designed to encourage candidates of various backgrounds into the plumbing industry, the teaching content and method of delivery, should therefore both reflect and encourage that principle.

National Unit Specification: support notes (cont)

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OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

The elements of the Core Skill of Problem Solving, such as planning and organising and critical thinking will be developed and enhanced as candidates undertake this Unit. Candidates will need to take account of a range of factors in order to work efficiently and safely, such as the choice of appropriate tools and their use. Complying at all times with health and safety requirements will enable candidates to develop co-operative working skills, as they must be aware of the safety of others as well as themselves. Individual discussions with assessors will enhance the evaluation of efficient working practices.

There are opportunities to research information about Health and Safety legislation enabling candidates to develop the Core Skill of Information Technology.

Although Communication skills are not formally assessed, candidates will have the opportunity to develop reading skills as they interpret manufacturers' instructions. There are opportunities to develop oral communication skills as candidates should be expected to communicate with others using the correct terminology, tone and style suited to the workplace.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Centres may use the Instruments of Assessment which they consider to be most appropriate but are encouraged to use the Assessment Support Pack (ASP) developed centrally by SQA.

It is expected that candidates will be given as much practise as possible in block walling techniques, prior to being set the assessment tasks.

An assessor observation checklist/record can be used to record evidence of the candidates ability to correctly install domestic plumbing appliances.

The candidate will be provided with all of the tools, materials and equipment to complete the practical tasks as well as drawings and specifications for the drainage installation.

Candidates will also be assessed on their compliance of health and safety legislations in the Construction Industry including the correct use of PPE, safe working practices, manual handling methods and the correct and safe use of tools.

The ASP includes observation checklist/records for the Unit.

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).