

## National Unit Specification: general information

<b>UNIT</b>	Construction Crafts: Plumbing of Sanitary Appliances (Intermediate 2)
<b>CODE</b>	DX0T 11
<b>COURSE</b>	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.

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### Administrative Information

<b>Superclass:</b>	TH
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### **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.









