



National Unit Specification: general information

UNIT Installing Domestic Drainage Systems: An Introduction
(SCQF level 5)

CODE F6LD 11

SUMMARY

This Unit provides an introduction to the key principles and techniques of installing drainage systems in a domestic environment. It will develop the candidate's understanding and practical skills in installing domestic drainage systems. On completion of this Unit, candidates will be able to make preparations for installing domestic drainage systems, by working with a specification to accurately measure out a work area and select the appropriate materials and tools required to carry out the installation. Candidates will safely install domestic drainage components whilst complying with all statutory and workplace safety guidelines. This Unit is suitable for candidates working towards a Modern Apprenticeship in the Construction Operative and Specialist suite.

OUTCOMES

- 1 Prepare for installing domestic drainage.
- 2 Install drainage components to meet the required specification.

RECOMMENDED ENTRY

While entry to this Unit is at the discretion of the centre, candidates undertaking a National Progression Award at SCQF level 5, as part of a Modern Apprenticeship, must meet the necessary criteria which includes being employed in the relevant industry.

Administrative Information

Superclass: TH

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National Unit Specification: general information (cont)

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 (SCQF level 5)

CREDIT VALUE

1 credit at SCQF level 5 (6 SCQF credit points at 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.

This Unit provides opportunities for candidates to develop aspects of the following Core Skills:

- ◆ *Numeracy* (SCQF level 3)
- ◆ *Working with Others* (SCQF level 3)
- ◆ *Communication* (SCQF level 3)
- ◆ *Problem Solving* (SCQF level 3)

National Unit Specification: statement of standards

UNIT Installing Domestic Drainage Systems: An Introduction (SCQF level 5)

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 SQA.

OUTCOME 1

Prepare for installing domestic drainage.

Performance Criteria

- (a) Interpret accurately the given drawings and specification for the work.
- (b) Establish the drainage components required to meet the works specification correctly.
- (c) Select correct drainage components to meet the specification.
- (d) Select the correct tools and equipment needed to carry out the work.
- (e) Check safety and security of the work environment and select appropriate personal protective equipment (PPE) for the task, in accordance with organisational requirements.

OUTCOME 2

Install drainage components to meet the required specification.

Performance Criteria

- (a) Prepare the work area correctly to receive drainage components.
- (b) Position drainage components accurately to required alignment, levels and falls.
- (c) Bed drainage components safely.
- (d) Back fill the work area as required.
- (e) Comply with all current workplace safety and legislative requirements.
- (f) Dispose of waste in accordance with legislative requirements.

National Unit Specification: statement of standards (cont)

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(SCQF level 5)

EVIDENCE REQUIREMENTS FOR THIS UNIT

Candidates are required to produce evidence to confirm that they have achieved all Outcomes and Performance Criteria outlined in this Unit.

Performance evidence is required to demonstrate the candidate has achieved the standard specified in the Outcomes and Performance Criteria for Outcomes 1 and 2. Performance evidence must be supplemented with an assessor observation/operational checklist and produced at an appropriate interval in training, under supervised conditions, once the candidate has developed the necessary skills and knowledge required to carry out the work.

Performance evidence should be demonstrated by the candidate laying all of the following:

- ◆ Foul drainage (clay and/or plastic pipes)
- ◆ Surface water drainage (clay and/or plastic pipes)
- ◆ Inspection chambers (plastic and/or concrete and/or brick)

As part of the assessment for this Unit, the candidate will also submit written product evidence such as a works checklist or completed risk assessment form. Oral evidence of knowledge and understanding may be demonstrated by the candidate during practical assignments set for Outcomes 1 and 2 and noted at the time by the observer.

National Unit Specification: support notes

UNIT Installing Domestic Drainage Systems: An Introduction (SCQF level 5)

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

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

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

The Outcomes and Performance Criteria for this Unit can be demonstrated by the candidate laying all of the following:

- ◆ Foul drainage (clay and/or plastic pipes)
- ◆ Surface water drainage (clay and/or plastic pipes)
- ◆ Inspection chambers (plastic and/or concrete and/or brick)

The content and context of this Unit has been set at an introductory level so that the candidate can develop a basic knowledge and ability in installing drainage systems within a domestic environment.

Health and Safety are vital to working practices within the construction industry and therefore, emphasis will be placed wherever appropriate during the delivery of this Unit on the correct application of Health and Safety principles and processes, in accordance with current codes of practice and legislation.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

These notes are for guidance purposes only, but are not to be considered as complete guidance to learning and teaching approaches.

Opportunities for integrated delivery of this Unit may be possible if candidates are also taking the Unit in *Excavating Holes and Trenches*. Delivery may also be integrated with mandatory Units.

The introductory training for this Unit should take place in a separate training area independent of the productive work environment and using dedicated equipment and resources. It should cover underpinning principles before any practical application of knowledge is carried out by candidates.

The delivery of this Unit should focus on ensuring that candidates acquire the knowledge required to interpret work specifications and drawings accurately. This will include learning how to identify the appropriate drainage components to use before carrying out any practical-based assignments within the workplace environment.

Development of practical knowledge and skills should ensure that candidates understand and adhere to relevant Health and Safety regulations and legislation at all times — for general construction practices, as well as those specific to the practical task they are requested to carry out (such as emphasising the importance of selecting and using the correct PPE at all times).

E-learning approaches may be appropriate to help tailor delivery to suit the individual needs or learning styles of candidates. This might include, for example, encouraging learners to use electronic resources to conduct research into a specific knowledge area.

National Unit Specification: support notes (cont)

UNIT Installing Domestic Drainage Systems: An Introduction (SCQF level 5)

OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

Performance Criteria as set out under Outcome 1 will enable candidates to apply and develop the Core Skill of *Numeracy* (SCQF level 3) when taking measurements and calculating the quantity of resources required to complete the work to the necessary standard. Candidates will also be provided the opportunity to extract numerical information presented in diagrammatic form when interpreting work specifications and drawings. Likewise, the interpretation of work specifications and drawings will require candidates to think critically, plan and organise the task accordingly — key aspects of the Core Skill of *Problem Solving* (SCQF level 3).

Throughout this Unit, candidates will be expected to develop the Core Skill of *Communication* (SCQF level 3) within the work environment, for example to inform others of any safety considerations, using the correct terminology and a tone appropriate to their audience. In addition, assessment processes for Outcome 1 may enable candidates the opportunity to develop their Written Communication skills. The opportunity for the Core Skill of *Working with Others* (SCQF level 3) will be provided as candidates ensure the safety of others as they comply with codes of practice and working regulations.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Centres may use the Instruments of Assessment they consider to be most appropriate, and the following notes are given as guidance only.

Opportunities for integrated assessment of this Unit may be possible if candidates are also taking the Unit in *Excavating Holes and Trenches*.

Practical and underpinning knowledge of laying domestic drainage systems should be assessed before any practical assignments are carried out by candidates. This will include assessment of a candidate's ability to select the appropriate drainage components for a specified task. Assessment of practical performance should take place under supervised conditions and confirm a candidate's practical ability to lay basic domestic drainage systems whilst adhering to Health and Safety regulations and legislation.

Outcomes 1 and 2 may be assessed by centres setting candidates a series of appropriate practical assignments carried out under supervised conditions and recorded in an assessor observation/operational checklist. Practical assignments undertaken by a candidate will be assessed according to their ability to carry out the task safely, using appropriate machinery according to manufacturer's guidelines.

Adherence to appropriate working regulations and Health and Safety procedures will be observed during the practical exercise carried out by the candidate towards Outcomes 1 and 2.

National Unit Specification: support notes (cont)

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E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

DISABLED CANDIDATES AND/OR THOSE WITH ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements