



National Unit specification

General information

Unit title: Construction: Information and Communication Technology (SCQF level 4)

Unit code: HC35 44

Superclass: CH

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Version: 02

Unit purpose

This Unit provides an introduction into how *Information and Communication Technology (ICT)* can be used in the construction environment. It will introduce to the learner the basic ways *ICT* can be used and utilised in the construction industry. This Unit is suitable for learners who have little or no knowledge of *ICT* uses in the construction industry and will introduce them to some of the basic uses of *ICT* in the construction environment.

Outcomes

On successful completion of the Unit the learner will be able to:

- 1 Identify *ICT* packages and their uses in the construction industry.
- 2 Use *ICT* packages to search and save information for three different construction occupational areas.
- 3 Prepare, complete and save electronic information that may be communicated to and from a construction company.

Credit points and level

0.5 National Unit credit at SCQF level 4: (3 SCQF credit points at SCQF level 4)

National Unit specification: General information (cont)

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Recommended entry to the Unit

Entry is at the discretion of the centre. Learners undertaking this Unit will have little or no knowledge or qualifications *Information and Communication Technology (ICT)* in the construction environment.

Core Skills

Achievement of this Unit gives automatic certification of the following:

Complete Core Skill Information and Communication Technology at SCQF level 3

Core Skill component None

There are also opportunities to develop aspects of Core Skills which are highlighted in the Support Notes of the Unit Specifications for this Course.

Context for delivery

If this Unit is delivered as part of a National Progression Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

The Training and Assessment Programme (TAP) for this Unit provides assessment and marking guidelines that exemplify the national standard for achievement. It is a valid, reliable and practicable assessment. Centres wishing to develop their own assessments should refer to the TAP to ensure a comparable standard. A list of existing TAPs is available to download from SQA's website (<http://www.sqa.org.uk/sqa/46233.2769.html>).

Equality and inclusion

This Unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

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 SQA.

Outcome 1

Identify *ICT* packages and their uses in the construction industry.

Performance Criteria

- (a) Identify two commonly used *ICT* packages in the construction industry and identify their uses.
- (b) Identify the occupation titles of two trades or professions within the construction industry who would normally use the packages identified.
- (c) Identify two advantages of using the *ICT* packages within the construction industry.

Outcome 2

Use *ICT* packages to search and save information for three different construction occupational areas.

Performance Criteria

- (a) Use an internet browser to search for one drawing detail one for each of three different construction occupation areas.
- (b) Save the three different technical drawing from (a) above to an *ICT* device.
- (c) Use *ICT* to search for the prices of one type of building materials used in each of the three construction drawing detail chosen.
- (d) List and save in electronic format the website(s) addresses where the prices from (c) above were obtained.
- (e) Save in electronic format the full website details of the Construction Industry Training Board (CITB) website, which offers information on apprenticeships.

Outcome 3

Prepare, complete and save electronic information that may be communicated to and from a construction company.

Performance Criteria

- (a) Complete and save an electronic weekly time sheet to send to the wages department of a construction company.
- (b) Prepare and save a message to your line manager about your overall performance on your last completed practical assessment.

National Unit specification: Statement of standards (cont)

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Evidence Requirements for this Unit

Evidence is required to demonstrate that the learner has achieved this Unit to the standard specified in the Outcomes and Performance Criteria.

Performance and knowledge evidence is required to demonstrate that the learner has achieved the standard specified in the Outcomes and Performance Criteria.

Performance and knowledge evidence must be produced at an appropriate point in training under supervised conditions once the learner has developed the necessary skills and knowledge required to carry out the assessment. This evidence must be supplemented with a completed assessor observational/operational checklist.

Outcome 1

Written evidence is required which demonstrates that the learner has achieved Outcome 1 to the standards specified in the Outcome and Performance Criteria. The evidence for this Outcome should be obtained under controlled, supervised conditions. The assessment will be closed-book and should last no more than 45 minutes.

Learner performance evidence must be used to show that the learner has achieved Outcomes 2 and 3 to the standard specified in the Outcomes and Performance Criteria.

Each learner will produce assessment evidence for the following:

Outcome 2

Learners must use *ICT* packages to search and save information for three different construction occupational areas. Any three occupational areas from the following list must be chosen:

Brickwork, Carpentry and Joinery, Floorcovering, Painting and Decorating, Construction Operations, Plastering, Roofing, Stonemasonry or Wall and Floor Tiling.

Learners must complete the following to successfully complete the Outcome:

- ◆ Electronically search for one construction drawing detail for each of three different occupational areas from the list of occupations above.
- ◆ Save the three construction drawing details on to any *ICT* device.
- ◆ Search for the prices of one building material or element shown on each of the saved drawings.
- ◆ Save the website(s) address where the above prices for the materials or elements were obtained.
- ◆ Electronically save the full CITB website details that gives information on apprenticeships in construction.

National Unit specification: Statement of standards (cont)

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Outcome 3

- ◆ Use *ICT* to complete a prepared weekly timesheet for submission to a wages department.
- ◆ Electronically save the completed weekly timesheet on any *ICT* device.
- ◆ Prepare an electronic message to your line manager detailing your performance and outcome of your latest practical assessment activity.
- ◆ Electronically save the completed message on to any *ICT* device.



National Unit Support Notes

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Unit Support Notes are offered as guidance and are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 20 hours.

Guidance on the content and context for this Unit

The Outcomes and Performance Criteria for this Unit can be demonstrated by the learner:

- ◆ Completing a closed-book knowledge and understanding paper and achieving the required pass mark.
- ◆ Using an internet browser to save one drawing or sketch detail for three different occupational areas on to any *ICT* device, eg laptop, mobile phone, tablet or memory stick/card.

The content and context of this Unit has been set at an introductory level so that the learner can develop a basic knowledge and ability in the use of *ICT* within the construction industry.

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 in relation to this type of *ICT* activity.

Guidance on approaches to delivery of this Unit

These notes are for guidance purposes only, and are not to be considered as a complete training package for centres to follow.

The introductory training for this Unit should cover theoretical and practical principles before any practical application of knowledge is carried out by learners.

Delivery of this Unit will be focussed on enabling learners to develop the knowledge required for using *ICT* within the construction industry.

Learners should learn and be encouraged to communicate the theories and principles behind *ICT* in construction. Delivery of this Unit should also ensure learners learn about the different components and devices used in *ICT* in construction, using the correct terminology and understanding the correct equipment and packages to be used for specified tasks, before any assessment work takes place.

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Emphasis will also be placed on the importance of learners accurately identifying and saving information gained using *ICT* systems and devices.

During delivery of the search and saving components of this Unit, learners should understand the importance of ensuring against virus attack on the devices they are using.

E-learning approaches may be appropriate to help tailor delivery to suit the individual needs or learning styles of learners.

Opportunities for integrated delivery of Core Skills and the knowledge developed in this Unit may be possible within the *ICT* activities in this Unit.

Guidance on approaches to assessment of this Unit

Centres may use the method of assessment which they consider to be most appropriate but are encouraged to use the Training Assessment Programme (TAP) developed centrally by SQA. It is expected that learners will have to demonstrate current knowledge and understanding of safe working practice and risk assessment methods, etc prior to being set the assessment tasks.

Knowledge and Understanding of the processes involved in *Construction: Information and Communication Technology (SCQF level 4)* should be assessed before any practical assignments are carried out by learners. This will include assessment of a learner's ability to prepare the work area for laying modular pavement.

Practical assignments should be carried out under supervised conditions and recorded in an assessor observation/operational checklist. Assessments should confirm that a learner has the ability to safely lay modular pavement using designated machinery or equipment correctly and safely, whilst adhering to current statutory Health and Safety regulations and legislation.

Adherence to current statutory working regulations and Health and Safety procedures will be observed during the practical exercise carried out by the learner towards all Outcomes.

Detailed assessment material for this Unit will be found in the relevant Training and Assessment Programme (TAP). Centres may use the instruments of assessment which they consider to be most appropriate but are advised to use the TAP which has been developed centrally by SQA. Any other instruments of assessment used must be comparable to the TAP and have been prior verified.

National Unit Support Notes (cont)

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Opportunities for e-assessment

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 social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at www.sqa.org.uk/e-assessment.

Opportunities for developing Core and other essential skills

Learners will apply the Core Skill of *ICT* when searching and saving information obtained through electronic means. Identifying the required number of construction drawings, materials or element prices and website details will require the learner to think critically, plan and organise the task accordingly — key aspects of the Core Skill of *Problem Solving*.

Throughout this Unit, learners will be expected to develop the Core Skill of *Communication* within the assessment environment, using the correct terminology and a tone appropriate to the workplace environment.

This Unit has the Core Skill of Information and Communication Technology embedded in it, so when learners achieve this Unit their Core Skills profile will be updated to show that they have achieved Information and Communication Technology at SCQF Level 3.

History of changes to Unit

Version	Description of change	Date
02	Core Skill Information and Communication Technology at SCQF level 3 embedded.	20/05/2016

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General information for learners

Unit title: Construction: Information and Communication Technology (SCQF level 4)

This section will help you decide whether this is the Unit for you by explaining what the Unit is about, what you should know or be able to do before you start, what you will need to do during the Unit and opportunities for further learning and employment.

The Unit will introduce you to the basic principles and procedures involved in using *ICT* within the construction industry. You will be assessed in the knowledge and understanding of the basic principles of using common *ICT* activities, by means of a closed-book multiple-choice question paper.

You will also be assessed when carrying out practical *ICT* activities involving accessing and saving information and completing documents and saving the content as part of the assessments, you will be given feedback by your assessor on your performance both during and on completion of these practical and knowledge assessment activities.

Elements of the Core Skills of *Information and Communication Technology (ICT)*, *Communication* and *Problem Solving* will be covered during the delivery of this Unit and may be used as performance evidence for some aspects of these Core Skills Units.

This Unit has the Core Skill of Information and Communication Technology embedded in it, so when you achieve this Unit your Core Skills profile will be updated to show that you have achieved Information and Communication Technology at SCQF Level 3.