

National Unit Specification: general information

UNIT Skillstart: Numeracy in a Work-Related Environment
(Access 2)

CODE DV2R 08

SUMMARY

This Unit will be suitable for candidates who are being introduced to a work-related environment. In the context of this Unit, an 'identified work-related environment' refers to either an identified workplace or an identified learning environment which simulates the workplace and which provides opportunities for practising work-related skills. The Unit introduces candidates to the use of numbers in a work-related environment, including the application of the basic skills of using number and of reading and using graphical information. The outcomes ask candidates to calculate working hours and to use basic measuring instruments and organise work. This Unit forms part of the Skillstart Group Award, but may also be taken as a free-standing Unit.

OUTCOMES

- 1 Apply the time schedules of the workplace.
- 2 Apply basic numeracy skills to work-related tasks.
- 3 Produce graphical information relating to the workplace.

RECOMMENDED ENTRY

It would be beneficial if candidates had some basic numeracy skills. This may be evidenced by possession of Unit EE6L 08 Numeracy for Life and Work.

CREDIT VALUE

1 credit at Access 2 (6 SCQF credit points at SCQF level 2*)

**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*

Administrative Information

Superclass: HD

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National Unit Specification: general information (cont)

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CORE SKILLS

The achievement of this Unit gives automatic certification of the following:

Complete Core Skill: Numeracy at SCQF level 2.

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

Apply the time schedules of the workplace

Performance Criteria

- (a) The observation of start and finish times for a period of work is correct in terms of punctuality.
- (b) The number of hours worked during a working day is calculated correctly.
- (c) The number of hours worked in a week is calculated correctly.

Evidence Requirements

Evidence for Performance Criterion (a) should be provided by the candidate completing an individual work schedule or work timetable as a graph. Punctuality regarding start and finish times for a period of work should be confirmed by direct observation of the candidate in an identified work-related environment.

Evidence for Performance Criteria (b) and (c) should be provided by the candidate using realistic work schedules or timetables to obtain information on working hours. Calculations must include addition, subtraction, simple multiplication and division of whole numbers. A calculator may be used.

OUTCOME 2

Apply basic numeracy skills to work-related tasks

Performance Criteria

- (a) Basic numerical notation is recognised and used correctly.
- (b) Familiar measuring instruments appropriate to the task are selected.
- (c) The scale on a familiar measuring instrument is read and used correctly to measure to the nearest marked number.

Evidence Requirements

Evidence for each Performance Criterion should be gathered from observation of the candidate in an identified work-related environment. This evidence may be gathered during the full range of learning activities experienced by the candidate while undertaking various tasks.

Evidence for Performance Criterion (a) should be gathered for two of the following: whole numbers; decimals; simple fractions ie $\frac{1}{4}$ and $\frac{1}{2}$.

National Unit Specification: statement of standards (cont)

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Evidence for Performance Criteria (b) and (c) should be gathered for tasks undertaken in the work-related environment. While gathering evidence for Performance Criterion (c) the candidate should read a basic scale to the nearest marked number on two occasions.

OUTCOME 3

Produce graphical information relating to the workplace

Performance Criteria

- (a) The task is carried out according to instructions.
- (b) A diagram with essential information is produced.

Evidence Requirements

Evidence for each Performance Criterion should be gathered from direct observation of the candidate in an identified work-related environment. This evidence may be gathered during the full range of learning activities experienced by the candidate.

Evidence for Performance Criterion (b) should include completing a diagram of the work place used by the candidate. The diagram should consist of a line drawing which the candidate will complete by adding basic 2D shapes to identify the location of three essential items.

National Unit Specification: support notes

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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 forms part of the Skillstart Group Awards at Access 2 and 3. Successful completion of either of these Group Awards may facilitate the candidate's progress towards Scottish Group Awards and Scottish Vocational Qualifications.

Achievement of the Unit may facilitate progress to other National Units in Numeracy and Mathematics.

This Unit should be seen in the context of the wide range of skills practised in the workplace and should be integrated into practical, learning activities. Practical work, assignments, work experience and work placement are all useful contexts for this Unit. The candidate should achieve the level of competence of someone who can apply basic numerical skills, and read and use basic graphical information in a familiar work-related situation.

Corresponding to outcomes:

Outcome 1

The candidate should demonstrate punctuality with regard to the start and finish times of his or her period of work which may include tea breaks and lunch break. It is suggested that a period of work should allow for practical sessions of a maximum of 2 hours' duration, for example, a workplace experience. The candidate should become familiar with normal working hours and the concepts of hourly rate of pay and of overtime. The candidate is expected to complete, (with tutor support if required), an individual schedule of actual time worked.

Outcome 2

The candidate should practise measuring skills. Candidates may use measuring devices appropriate to their basic work-related tasks. At this level an appropriate measuring device could be a ruler, metre stick, tape measure, weighing scales, thermometer, measuring jug.

Outcome 3

The candidate is expected to produce graphical information relating to the workplace. This may be:

- ◆ a diagram of the work area showing essential equipment
- ◆ a diagram of the workplace showing health and safety features
- ◆ a diagram of service routes to the work premises.

National Unit Specification: support notes (cont)

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GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Wherever possible the candidate should be encouraged to associate the Outcomes in this Unit with his or her own experience of the work-related environment.

Outcome 1

The candidate is expected to complete an individual work schedule of actual time worked. It is acceptable for tutors to give support by providing a work schedule that is already drawn up and partially completed.

It is assumed at the level of this Unit, that calculations of working hours are carried out mentally, written or by calculator as appropriate. Schedules used for these tasks should be realistic but not necessarily those of the particular work-related environment experienced by the candidate. It is essential that the calculations include addition, subtraction, simple multiplication and division of whole numbers, in order to meet the requirements of the embedded numeracy core skills.

Outcome 2

When generating evidence for the recognition and use of basic numerical notation, it is essential that two of the three notations (whole numbers, decimals, simple fractions ie. $\frac{1}{4}$, $\frac{1}{2}$), are covered in order to meet the requirements of the embedded numeracy core skill. It is acceptable for the candidate to use basic measuring scales. A basic measuring scale is defined as having every division numbered.

Outcome 3

The candidate is expected to carry out a work-related task according to instruction. During the task, the candidate may be encouraged by further prompting. If the candidate has to repeat part of the task, following additional instruction or prompting, then he/she requires more practice before being assessed on routine task management.

The candidate is expected to produce graphical information relating to the workplace eg pieces of equipment, using basic 2D line drawing (for example, squares and/or rectangles) or the candidate could complete a diagram of the work area by marking two service routes used by services to the workplace. It is acceptable for tutors to give support by providing line drawings and routes that are already partially completed. An example of services to the workplace could be suppliers to the workplace.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Centres may use the Instruments of Assessment which are considered by tutors to be most appropriate. Suggested assessment procedures for all outcomes consist of Practical Exercises, Short Answer Questions and Completion Exercises.

National Unit Specification: support notes (cont)

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When answering questions, the candidate should use his or her normal mode of communication. It is the centre's responsibility to ensure that an accurate record of the candidate's response is retained as evidence of the candidate's competence.

Outcome 1

In respect of Performance Criterion (a) the candidate should be observed over a period of time to ensure that punctuality is consistently observed. The candidate should complete an individual work schedule or work timetable, with support if required, in that the schedule or timetable is already drawn up and partially completed.

Short Answer Questions could be used to gather evidence for Performance Criteria (b) to (e). The candidate should use realistic work schedules or timetables to obtain information on working hours. Calculations should include addition, subtraction, simple multiplication and division of whole numbers. The candidate may use a calculator.

Outcome 2

Practical Exercises could be used to gather evidence for all Performance Criteria. Short Answer Questions or a Personal Interview could be used to obtain evidence that the candidate has selected the correct units of measurement and the correct measuring devices by knowledge of their use to ensure that the correct selections were not made by chance.

Outcome 3

Practical Exercises could be used to gather evidence for Performance Criterion (a). Completion exercises could be used to obtain evidence for Performance Criterion (b). Evidence for Performance Criterion (b) could include the completion of a basic diagram of the workplace by the candidate. The candidate is required to add basic 2D shapes, (for example squares and/or rectangles) to the diagram.

CANDIDATES WITH ADDITIONAL SUPPORT NEEDS

This Unit Specification is intended to ensure that there are no artificial barriers to learning or assessment. 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. For information on these, please refer to the document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (SQA, 2004).