

NUMERACY
Using graphical information
SCQF Level 2
10 Hour Unit

CORE SKILLS UNIT

ASSESSMENT SUPPORT PACK

Part 1: Information for tutors

What is involved?

This Unit is one of a group of four 10 hour Units:

- ◆ Using number: time
- ◆ Using number: money
- ◆ Using number: measuring
- ◆ Using graphical information.

Together these deliver the complete Numeracy Core Skill at SCQF level 2.

Using graphical information is about reading and using very simple graphical information in familiar, everyday personal, workplace, social and educational situations. The focus of the Unit is on transferable numeracy skills. It is designed for delivery in schools, colleges, workplaces, community and other learning environments.

The learner will be expected only to work with very simple graphical information. The work will be simple and routine, using everyday concepts familiar to the learner.

Learner motivation can be maximised by making the numeracy activities as relevant as possible to the learner's likely uses for numeracy. The activities should consist of an appropriate mix from: personal, workplace, social and educational examples. Additionally, integration of the numeracy activities with those of other SQA Units being undertaken should be explored. For example, when a learner is undertaking vocational Units, motivation for numeracy can be increased if the activities are related to the vocational Unit and the learner can see the direct relevance of the numeracy.

Assessment and evidence

Learners at SCQF level 2 are required to use very simple graphical concepts in familiar situations. They are not required to create a table or graphical form from scratch. When required to communicate information graphically, they should be provided with partially completed graphical forms or tables. Prompting and support should be provided for the learners when they are communicating information graphically.

If appropriate, the learner should be allowed to use a calculator. It may be appropriate for the learner to use a computer to create the graphical information for the purpose of assessment. You may provide considerable prompting at this level.

You should try to identify naturally-occurring opportunities for assessment where possible. For learners who are also working towards vocational or subject specific Units, opportunities for assessment of graphical skills could arise while completing vocational tasks which provide evidence for both the vocational or subject specific Unit and this Unit. Some of the exemplars in this pack could be used or contextualised for this purpose.

The assessment process is likely to involve one or more of:

- ◆ written tasks
- ◆ oral questioning
- ◆ observation.

When assessing by observation, you must keep a detailed checklist. Similarly if you use oral questioning, you must keep a record of both the questions and learner responses. All evidence, whether produced by the learner or a record made by yourself must be retained, signed and dated by you.

Planning

You should work out where opportunities for meeting standards are likely to arise. Where possible this should be built into the assessment process. You should discuss this assessment process with the learners so that they are quite clear about what is expected from them.

Guidance on the Unit

What learners need to know or be able to do

The Unit states that on completion the learner will know how to:

- ◆ get information from a very simple table containing one type of information (eg a timetable), or a very simple diagram (eg a diagram of a 2-dimensional shape such as a floor plan, or a very simple map)
- ◆ add information to a very simple table containing one type of information (eg a timetable), and a very simple diagram (eg a diagram of a 2-dimensional shape such as a floor plan, or a very simple map)

In this Unit, learners will need to know how to interpret graphical information and how to represent information graphically. The formats should be dealt with at a very simple level.

At this level, the graphical presentation of information is restricted to tables and diagrams. You, as the tutor, will choose the appropriate graphical format for the learner.

In activities for the learners to communicate graphically, you will provide partially completed tables and diagrams. You should also be prepared to offer support and prompt the learners as necessary during the activity.

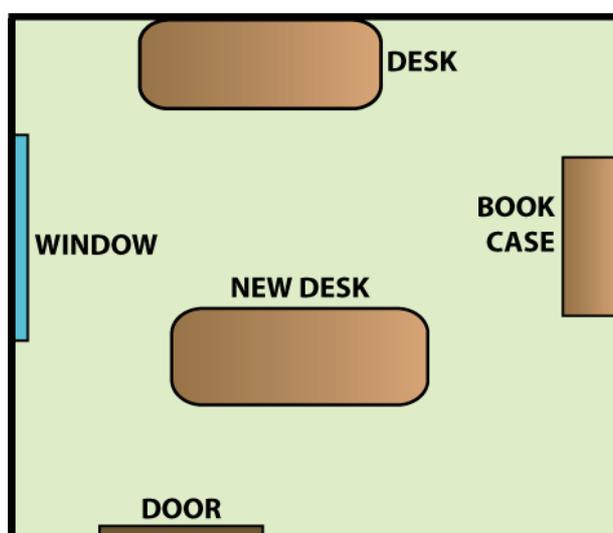
Tables

Tables are a general purpose method of displaying information graphically. In this Unit tables should be restricted to one category of information. The example below has the categories of bus departure times.

| Bus Departures | | | | | |
|-----------------------------|---|------|------|------|------|
| Route: Inverbeg to Lochaish | | | | | |
| Bus leaves at: | | | | | |
| 0600 | — | 0700 | 0730 | 0800 | 0830 |
| 0900 | — | 1000 | — | — | — |
| 1200 | — | — | — | 1400 | — |
| — | — | 1600 | 1630 | 1700 | 1730 |
| 1800 | — | — | — | 2000 | — |
| — | — | 2200 | — | — | — |

Diagrams

Diagrams are a method of presenting information which has a spatial relationship. A learner activity might be to complete a plan of a room layout for instance. Another example is the use of a map to find the position of a particular town or building. The learners will need to know simple two-dimensional shapes (eg square, rectangle.) A simple room plan is shown below.



Gathering evidence

It may be appropriate for you to gather written evidence produced by the learner carrying out practical exercises. However, written evidence is not essential for this Unit and is inappropriate if it disadvantages the learner.

You may wish instead to observe the learner carrying out a task and question them on completion. This requires you to create and complete record sheets comprising a checklist, questions asked and learner responses.

From the learner's point of view, it is very useful to be provided with a means of keeping all the work relevant to this Unit together. You can help here by creating and providing the learner with a workbook which includes all the evidence gathering items. An alternative is to provide worksheets which can be made into a portfolio or e-portfolio.

If you have chosen to integrate the numeracy work with that of other Units being undertaken by the learner, it may be possible to assess the numeracy as part of a larger single activity. In this case you must keep separate records of assessment decisions for this Unit.

Evidence for this Unit may be gathered in a variety of ways. Some typical activities might be:

- ◆ finding bus departure times from a timetable showing one destination
- ◆ finding the time of the TV News from a very simple broadcasting schedule.

Communicate information through:

- ◆ a very simple table containing one category of information (eg a timetable)
- ◆ a very simple diagram (eg a diagram of a 2-dimensional shape such as a plan of a floor area; a simple map.)

This may be achieved in a variety of ways. Some typical activities might be:

- ◆ adding your home, school/college or workplace to a very simple street map of the local area
- ◆ producing a simple room plan using shapes provided by your tutor.

Part 2: Exemplar assessment tasks

Note

You can use the exemplar assessments given in this section in several ways:

- ◆ to help identify the type and amount of evidence which the learner needs to produce
- ◆ to help identify the level of complexity in evidence required for this Core Skill at this level
- ◆ to help you to create an assessment task related to the learner's own situation
- ◆ as an off-the-shelf assessment, although every effort should be made to source/provide the learner(s) with their own meaningful context.

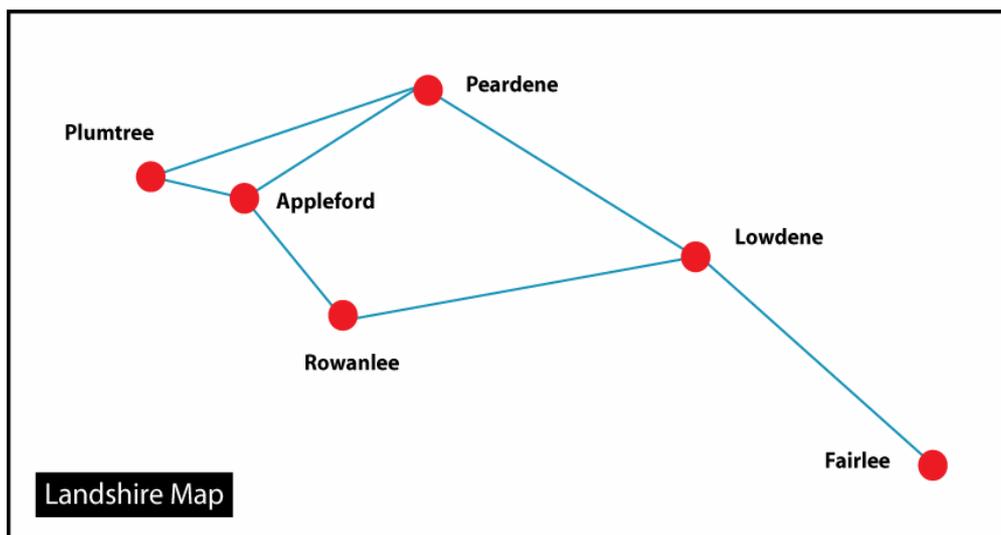
Exemplar assessment

Task 1: Extract information from a very simple table and diagram.

- 1 One morning, at 10.15, you decide you would like to go to the beach. You decide to check on the radio, what the weather will be like. Use the table showing when the weather forecasts are on the radio to decide which is the first one you can hear. Draw a circle round your chosen time.

| Weather Forecast Times | | | | |
|------------------------|------|------|------|------|
| at: | | | | |
| 0710 | 0730 | 0750 | 0830 | 0900 |
| 0930 | 1000 | 1030 | 1100 | 1200 |
| 1300 | 1700 | 1800 | 2000 | 2230 |

- 2 You live in the town of Appleford and intend to go to the beach at Fairlee. On the map below, draw a circle around each of these two places.

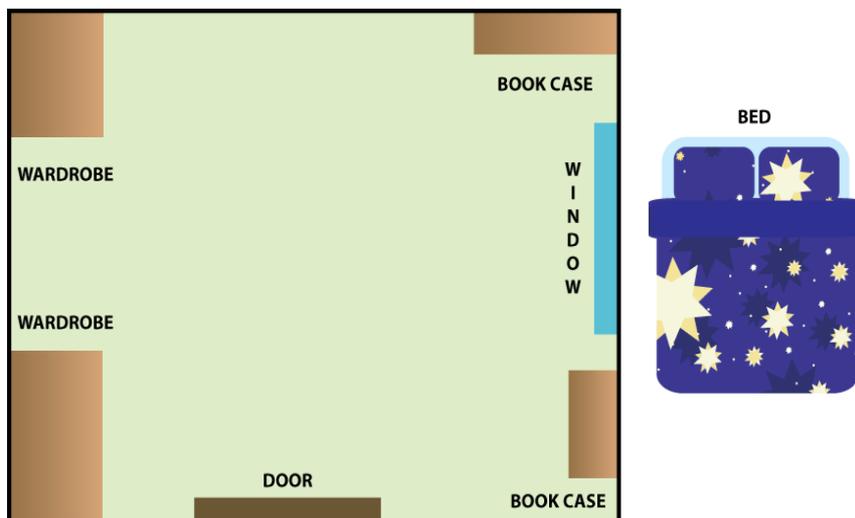


Task 2: Communicate information in a very simple table and diagram.

- 1 Jenny likes repairing things and has a lot of tools. She wants to make a table of all her different sizes of spanners. She has the following sizes: 10mm, 12mm, 14mm, 16mm, 18mm, 20mm and 22mm. She has started the table below, putting the spanners in order of size. Complete her table by putting in all the missing spanner sizes.

| Jenny's Spanners |
|------------------|
| 10mm |
| 12mm |
| — |
| 16mm |
| — |
| — |
| 22mm |

- 2 The plan shows a bedroom layout and a bed which can be placed in the room.



The bed is to be placed against a wall.

- a) Show the positions where the bed can go if the short side of the bed is against a wall
- b) Show the position where the bed can go if the long side of the bed is against a wall.

Notes for assessment

The learner must successfully complete the two items in each of the two tasks to achieve this Unit

Task 1

This consists of extracting information from a very simple table and diagram.

- 1 Table — the correct answer is 10.30. To obtain the answer, the learner inspects the single time category to find the first weather forecast time after 10.15.
- 2 Diagram — the learner will draw a circle around the starting point and destination on the map.

Task 2

This consists of communicating information using a very simple table and diagram.

- 1 Table — the learner should complete it as shown by putting in the three missing spanner sizes in the correct places.

| Jenny's Spanners |
|------------------|
| 10mm |
| 12mm |
| 14mm |
| 16mm |
| 18mm |
| 20mm |
| 22mm |

2 Diagram — The learner can use observation or trial and error to show:

- a)** the two positions where the bed can go if the short side of the bed is against a wall.
- b)** the one position where the bed can go if the long side of the bed is against a wall.

It is suggested that each of the two tasks are presented as worksheets and the learners carry out the activity on the worksheets. For the second part of task 2, the bed can be in the form of a cut-out of the correct size and thus be used for trial and error by the learners.

Part 3: Exemplar recording documentation

This section provides example forms which can be used by the tutor to record assessment decisions.

The two checklists are for completion by the tutor, recording assessment and Unit progress. In the first checklist, under the heading 'Activity' the tutor should insert the component of the skill eg simple table.

Assessment checklist

| Candidate: | | |
|---|-----------------|-----------------------------|
| Task 1: Extract information from a very simple table and diagram | | |
| Activity | Evidence | Tutor comment / Date |
| 1 | | |
| 2 | | |
| Task 2: Communicate information in a very simple table and diagram | | |
| Activity | Evidence | Tutor comment / Date |
| 1 | | |
| 2 | | |
| Tutor signature: | | Date: |

Summary checklist

| Candidate: | | |
|---|----------------------|------------------------|
| Candidate number: | | |
| Centre: | | |
| Task | Date achieved | Tutor signature |
| Task 1: Extract information from a very simple table and diagram | | |
| Task 2: Communicate information in a very simple table and diagram | | |

Part 4: Information for learners

As you work through this Unit, your tutor will need to gather evidence that you are successfully completing the various tasks you do.

This can be done:

- ◆ by you completing an exercise
- ◆ by the tutor watching you work
- ◆ by the tutor asking you questions
- ◆ by you filling in a work book or diary.

By the end of the Unit you must have shown that you can:

- ◆ get information from a very simple table containing one type of information (eg a timetable), or a very simple diagram (eg a diagram of a 2-dimensional shape such as a floor plan, or a very simple map)
- ◆ add information to a very simple table containing one type of information (eg a timetable), and a very simple diagram (eg a diagram of a 2-dimensional shape such as a floor plan, or a very simple map)

Examples of a table and a diagram include:

- ◆ a bus timetable
- ◆ a room layout plan.

These are some of the things you might do to provide the evidence:

- ◆ finding bus departure times from a timetable showing one destination
- ◆ finding the time of the TV News from a very simple broadcasting schedule
- ◆ adding your home, school/college or workplace to a very simple street map of the local area
- ◆ producing a simple room plan using shapes provided by your tutor.

Learners with disabilities and/or additional support needs

The additional support needs of individual learners should be taken into account when planning learning experiences, selecting the most appropriate assessment activity and considering any reasonable steps which might be necessary to allow the learner to meet the assessment standard.

Further advice can be found in SQA's Assessment Arrangements' web pages (www.sqa.org.uk)

ADMINISTRATIVE INFORMATION

Core Skills

This Unit is part of a suite of four Units which when completed give automatic certification of the Core Skill of Numeracy at SCQF Level 2. The other Units in this suite are:

Using number: Measuring at SCQF Level 2

Using number: Money at SCQF Level 2

Using number: Time at SCQF Level 2

Credit Value

0.25 Credit(s) at (SQA Level 08) (1.5 SCQF credit points at SCQF Level 2)

Unit Code: F3GG 08

Superclass: RB

Publication Date: August 2008

Source: Scottish Qualifications Authority

Version: 01



Helpdesk 0845 279 1000

Fax: 0845 213 5000

Email: customer@sqa.org.uk

Website: www.sqa.org.uk

| | |
|------------------------|-----------------------|
| Optima Building | Ironmills Road |
| 58 Robertson Street | Dalkeith |
| Glasgow | Midlothian |
| G2 8QD | EH22 1LE |

© Scottish Qualifications Authority 2008