NUMERACY
Using Graphical Information
SCQF Level 2
10 Hour Unit (F3GG 08)

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. In addition, integration of the numeracy activities with those of other SQA Units being undertaken should be explored. For example, when a learner is undertaking vocational or subject-specific Units, motivation

for numeracy can be increased if the activities are related to the vocational or subject-specific Units 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 tasks that provide evidence for both the vocational/ 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 the 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 learners will:

- 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 two-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 two-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.

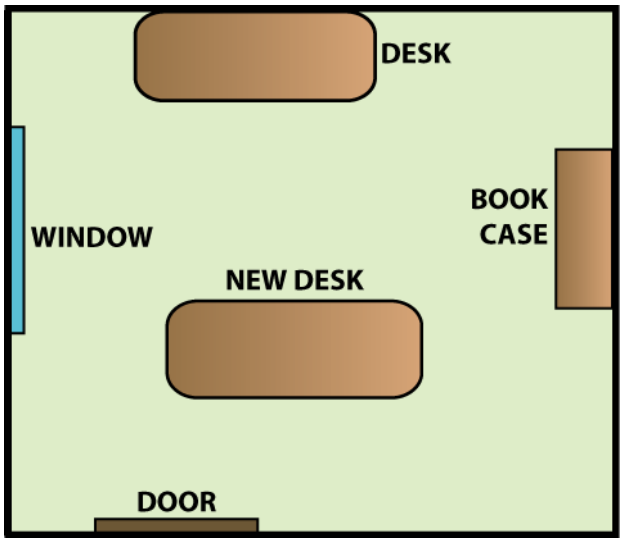
Tables

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:					
06.00	—	07.00	07.30	08.00	08.30
09.00	—	10.00	—	—	—
12.00	—	—	—	14.00	—
—	—	16.00	16.30	17.00	17.30
18.00	—	—	—	20.00	—
—	—	22.00	—	—	—

Diagrams

Diagrams are a method of presenting information that 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

For verification purposes it is only necessary to retain evidence for each activity stated in the Unit. Learners must meet all of the requirements of the Unit (ie 100% achievement) but they do not have to do so as part of one exercise. Evidence can be collected where it occurs naturally in exercises performed in different contexts or it can be generated through one or more set assessment(s).

Where a tutor collects naturally occurring evidence for the Numeracy Core Skill, they must satisfy themselves that the learner is capable of fulfilling each of the activities stated in the Unit consistently. However, it will only be necessary for the tutor to retain one piece of evidence for each activity.

If a tutor opts to collect evidence through one or more set assessment(s) covering the activities stated in the Unit and a learner is successful in some but not all of the activities, that learner would only need to be reassessed in the activities they did not achieve.

Where a tutor collects evidence through one or more set assessment(s), it would normally be expected that considerable learning and teaching will have taken place prior to the learner undertaking the set assessment(s). As part of the learning and teaching, learners should have successfully completed tasks and exercises of a similar level to those they will tackle in each set assessment, on at least one occasion. In other words, learners will normally have shown in class activities that they are capable of working at the required level before they are deemed ready for each set assessment.

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 that includes all the evidence-gathering items. An alternative is to provide worksheets that 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 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 two-dimensional shape such as a plan of a floor area or 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

Disabled learners and/or those with additional support needs

The additional support needs of individual learners 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**.

Part 2: Assessment guidance

You can use the information given in this section in several ways:

- to help identify the type and amount of evidence that 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 create an assessment task related to the learner's own situation

You can use the following information to create task sheets to be used with the learners in assessment sessions. The task sheet will contain the assessment items and you can leave appropriate space for the learners to insert their responses.

The guidance given in the rest of this section is based on the example of a centre that chooses to develop two tasks to cover the assessment of this Unit. In the following pages examples are given of the type of activities and questions that could be set by the centre as part of the tasks.

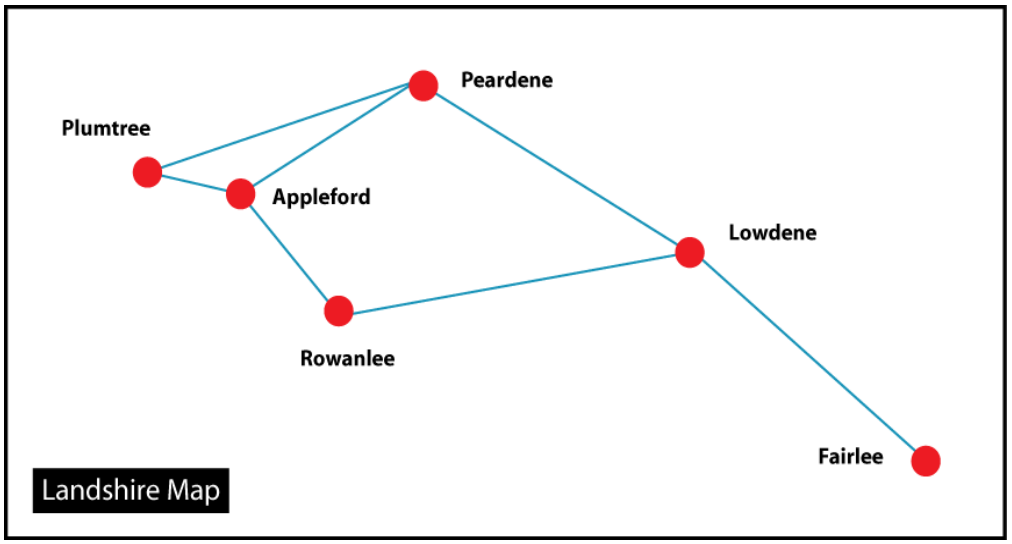
Exemplar assessment

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:				
07.10	07.30	07.50	08.30	09.00
09.30	10.00	10.30	11.00	12.00
13.00	17.00	18.00	20.00	22.30

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.

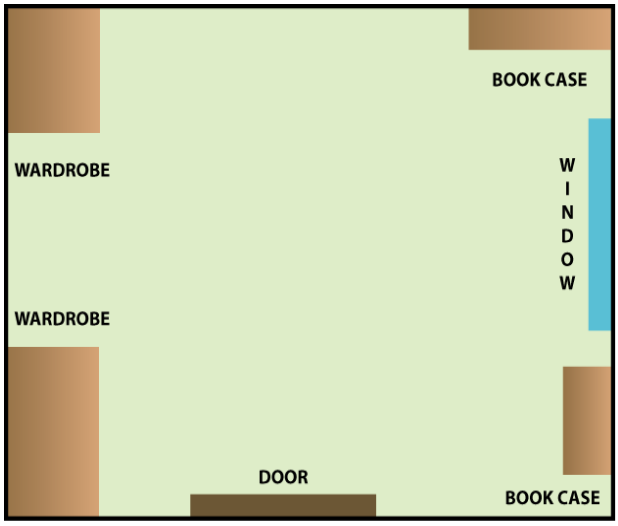


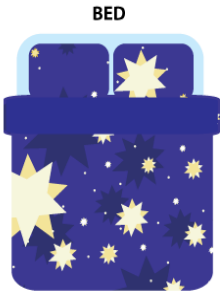
Task 2: Communicate information in a very simple table and diagram

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: 10 mm, 12 mm, 14 mm, 16 mm, 18 mm, 20 mm, and 22 mm. 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
10 mm
12 mm
—
16 mm
—
—
22 mm

2 The plan shows a bedroom layout and a bed that 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
10 mm
12 mm
14 mm
16 mm
18 mm
20 mm
22 mm

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 that can be used by the tutor to record assessment decisions.

The 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 requirement that is being assessed, eg extracting information from a simple table.

Assessment checklist

Learner:		
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

Learner:		
Learner 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		

ADMINISTRATIVE INFORMATION

Core Skills

This Unit is part of a suite of four Units that 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

1.5 SCQF credit points (0.25 SQA credits) at SCQF level 2

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Helpdesk:	0845 279 1000
Fax:	0845 213 5000
E-mail:	customer@sqa.org.uk
Website:	www.sqa.org.uk

Optima Building
58 Robertson Street
Glasgow
G2 8DQ

Ironmills Road
Dalkeith
Midlothian
EH22 1LE