SCOTTISH QUALIFICATIONS AUTHORITY

# MATHEMATICS
## Access 2

**Fifth edition – published November 2003**

# NOTE OF CHANGES TO ACCESS 2 ARRANGEMENTS FIFTH EDITION - PUBLISHED NOVEMBER 2003

**CLUSTER TITLE:** Mathematics (Access 2)

**CLUSTER NUMBER:** C056 08

## National Cluster Specification

| | |
|---|---|
| *Cluster Details* | No changes |

## National Unit Specification:

| | |
|---|---|
| *D556 08 Using Mathematics in Everyday Situations 1* | Minor change (Guidance On Approaches To Assessment). |

SCOTTISH QUALIFICATIONS AUTHORITY

# National Cluster of Units

# MATHEMATICS (ACCESS 2)

# CLUSTER NUMBER C056 08

## STRUCTURE

The cluster of units comprises:

| | | |
|---|---|---|
| ***D556 08*** | ***Using Mathematics in Everyday Situations 1 (Acc 2)*** | ***1 credit (40 hours)*** |
| ***D557 08*** | ***Using Mathematics in Everyday Situations 2 (Acc 2)*** | ***1 credit (40 hours)*** |
| ***D558 08*** | ***Using Mathematics in Everyday Situations 3 (Acc 2)*** | ***1 credit (40 hours)*** |

The cluster can be taught successfully in the sequence indicated above and the content also allows for integration across units. Planning should take account of the skills of the candidate together with the facilities and resources available. Candidates progressing from Access 1, after suitable bridging work, should start with *Using Mathematics in Everyday Situations 1* which focuses on the development and application of basic numeracy skills.

In common with all courses, this programme of study includes a further 40 hours over and above the 120 hours of the component units. This is for induction, extending the range of learning and teaching approaches, support, consolidation and integration of learning. This time is an important element of the programme of study and advice on its use is included in the cluster details.

## RECOMMENDED ENTRY

Entry is at the discretion of the centre.


**Administrative Information**

**Publication date:** November 2003

**Source:** Scottish Qualifications Authority

**Version:** 05

## National Cluster of Units: general information (cont)

**COURSE** Mathematics (Access 2)

### CORE SKILLS

This cluster gives automatic certification of the following:

| | | |
|---|---|---|
| **Complete core skills for the cluster** | Numeracy | Acc 2 |
| **Additional core skills components for the cluster** | Critical Thinking | Acc 2 |

For information about the automatic certification of core skills for any individual unit in this cluster, please refer to the General Information section at the beginning of the unit.

Additional information about core skills is published in the *Catalogue of Core Skills in National Qualifications* (SQA, 2001).

## National Cluster: details

## COURSE Mathematics (Access 2)

### RATIONALE

It is anticipated that the programme will suit a wide range of potential candidates, but particularly candidates who wish to gain and apply basic mathematical skills. It has been designed to offer candidates opportunities to use a range of mathematical skills in everyday situations at an appropriate level.

The aims of this cluster are to provide experiences of the following aspects of mathematics in everyday situations:

- identify aspects of time in everyday living
- tell the time and calculate time intervals
- use money to meet everyday expenses
- use money and budget
- carry out weighing and measuring of everyday items
- use common units of length, weight and volume
- interpret quantifiable information in tables, charts, maps, plans and shapes
- convey information using tables, charts, maps, plans and shapes

### CONTENT

The cluster comprises the three units:

*Using Mathematics in Everyday Situations 1 (Acc 2)*
*Using Mathematics in Everyday Situations 2 (Acc 2)*
*Using Mathematics in Everyday Situations 3 (Acc 2)*

which aim to:

- develop and apply basic numeracy skills
- develop skills in the handling of time, money and measurement
- develop understanding of shapes and graphical representation

All skills are developed in the context of daily living.

Undertaking the group of units as a coherent whole offers a number of benefits:

- together, the three component units offer opportunities to deliver an integrated, holistic learning experience
- balance and breadth of the candidate's experiences and learning will be promoted
- practical activity may be integrated
- skills and abilities developed through practical activity support learning as a whole

## National Cluster: details (cont)

**CLUSTER** Mathematics (Access 2)

### *Using Mathematics in Everyday Situations 1 (Acc 2)*

This unit focuses on:

- identifying aspects of time in everyday living and developing understanding of recurring events
- using money to plan everyday expenses
- carrying out weighing and measuring of everyday items

### *Using Mathematics in Everyday Situations 2 (Acc 2)*

This unit further develops areas covered in Unit 1 by providing opportunities for:

- telling the time and calculating time intervals
- using money and budgeting
- using common units of length, weight and volume

### *Using Mathematics in Everyday Situations 3 (Acc 2)*

This unit develops mathematical skills in practical contexts involving shapes and diagrams. Candidates will interpret graphical information, convey information graphically and construct shapes.

### ASSESSMENT

Access differs from other levels in that there is no external assessment. However a cluster provides opportunities for sustained and progressive learning and for more broadly-based integration of knowledge and skills than is possible in discrete units.

Candidates should be aware of assessment criteria and instruments. It is anticipated that ongoing assessment will take place, informing and supporting candidates. Holistic approaches to assessment should be adopted. A variety of approaches to assessment may be appropriate. Details of assessment are provided in the unit specification. Candidates will prepare for the outcomes of each unit, which will evolve through learning and teaching activities across the units.

A number of assessment instruments can be used across the component units, and these offer opportunities for a more integrated and holistic approach. Whenever possible, evidence for assessment is gathered as part of the integrated coursework.

The instruments of assessment which might be used in this way include:

- practical demonstration of mathematical skills
- candidate log/diary for record keeping
- personal interview
- short answer questions

Further detail of specific assessments is given in the unit specifications.

## National Cluster: details (cont)

## CLUSTER Mathematics (Access 2)

### APPROACHES TO LEARNING AND TEACHING

All three units can be taught as free-standing units. It is recommended that the candidate assembles a personal folder of information and work done. The teacher/lecturer should use opportunities from a variety of contexts and settings in the candidate's daily learning experiences in order to provide practical experiences, and an informal and flexible approach should be adopted.

**Materials/equipment**

Candidates will experience working with a wide range of resources. Examples include actual money, copy money used for learning purposes, clocks, calendars, worksheets, computer programs, models, measuring instruments.

The programme allows 40 hours of additional time. Appropriate activities which could be undertaken might include:

- diagnostic assessment
- opportunities for learning with support
- consolidation of learning
- integration of learning
- target setting and review
- personal performance improvement

### SPECIAL NEEDS

This specification is intended to ensure that there are no artificial barriers to learning or assessment. Special 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 SQA document *Guidance on Special Assessment Arrangements* (SQA, 2001).

## National Unit Specification: general information

**UNIT** Using Mathematics in Everyday Situations 1 (Access 2)

**NUMBER** D556 08

**CLUSTER** Mathematics (Access 2)

### SUMMARY

This unit provides opportunities for the candidate to develop and apply basic numeracy skills in the context of everyday living.

### OUTCOMES

1 Use time in everyday living.
2 Use money to plan everyday expenses.
3 Weigh and measure everyday items.

### RECOMMENDED ENTRY

Entry is at the discretion of the centre.

### CREDIT VALUE

1 credit at Access 2.

**Administrative Information**

**Superclass:** RB

**Publication date:** November 2003

**Source:** Scottish Qualifications Authority

**Version:** 04

## National Unit Specification: general information (cont)

**UNIT** Using Mathematics in Everyday Situations 1 (Access 2)

### CORE SKILLS

This unit gives automatic certification of the following:

**Complete core skills for the unit** None

**Core skills components for the unit** Critical Thinking Acc 2

Additional information about core skills is published in the *Catalogue of Core Skills in National Qualifications* (SQA, 2001).

# National Unit Specification: statement of standards

## UNIT Using Mathematics in Everyday Situations 1 (Access 2)

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

Use time in everyday living.

**Performance criteria**

(a) Times, days and dates for daily, weekly and annual events are stated accurately.
(b) Days of the week are stated in correct sequence.
(c) Interpretation of the monthly calendar is correct.
(d) Time read from a display is stated corrected.

**Evidence requirements**

Written and/or oral evidence as follows:
PC (a) time is stated accurately with regard to use of times in the day, days in the week and dates in the year.
PC (b) days of the week are stated in correct sequence.
PC (c) using a monthly calendar, the following are interpreted correctly:

- a day of the week, identified from its date
- time interval in days within a month is identified correctly

PC (d) information given on a digital (12 hour only) display, analogue display and simple timetable. Each is stated correctly on two occasions.

### OUTCOME 2

Use money to plan everyday expenses.

**Performance criteria**

(a) Identification of coins and banknotes is correct.
(b) The selection of coins and banknotes to make up sums of money is correct.
(c) The selection of coins and banknotes is greater than the required price of a purchase but not excessively so.
(d) Calculation of the amount of money due in change from a purchase is correct.

**Evidence requirements**

Performance evidence for each performance criterion should be gathered from direct observation of the candidate in the learning environment. When evidence cannot be gathered from performance evidence alone, for example, ensuring the accuracy of calculations, additional evidence should be gathered from the candidate's answers to questions. This evidence may be gathered during the full range of learning activities experienced by the candidate.

PC (a) coins and banknotes identified should cover the range currently in use, up to £20.
PC (b) and (c) selection of currency should be up to £5.
PC (d) calculation should include situations where the change due is £2 or more.
PCs (b) (c) and (d) the candidate should provide evidence of competence on two occasions for each performance criterion.

## National Unit Specification: statement of standards (cont)

**UNIT** Using Mathematics in Everyday Situations 1 (Access 2)

### OUTCOME 3

Weigh and measure everyday items.

**Performance criteria**

(a) The selection of measuring devices is appropriate to their purpose.
(b) The use of measuring devices is demonstrated correctly.
(c) Weighing and measuring are to a functional degree of accuracy.

**Evidence requirements**

The candidate should provide performance evidence of competence on two occasions for each performance criterion. Length, weight and volume must be covered on two occasions for each performance criterion.

## National Unit Specification: support notes

## UNIT Using Mathematics in Everyday Situations 1 (Access 2)

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 CONTENT AND CONTEXT FOR THIS UNIT

This unit should be seen in the context of the wide range of skills needed for daily living and should be integrated into practical activities in the learning environment wherever possible.

The learning programme should provide a wide variety of content and contexts for practising basic numeracy skills. Practical exercises in using basic numeracy skills will occur naturally in the candidate's overall programme. Opportunities might include practical work, work experience, simulations, residential stays.

### GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Candidates should be given the opportunity to achieve the level of competence of keeping time, handling money and measuring to meet the requirements of routine everyday living. To this end, the teacher/lecturer should use opportunities from a variety of contexts and settings to provide candidates with practical experience in using basic numeracy skills.

***Outcome 1***
This outcome could be carried out during the candidate's normal learning programme. Daily occurrences relating to time could include the start and finish of the candidate's day and breaks, use of transport such as catching buses or trains or meeting personal transport.

Weekly occurrences/times could include: events at weekends, favourite television programmes, sports or club meetings.

Annual events could include dates of personal importance, eg, birthdays, or national importance, for example, Christmas.

***Outcome 2***
The sums of money handled by the candidate should reflect his/her daily, or frequent, purchases or expenditure, such as bus or train tickets, telephone calls, snacks and meals, journals and other personal choices of purchases. Actual currency or simulated money (copy money used for learning purposes), may be used for the identification of coins and banknotes, for the selection of coins and banknotes to make up sums of money, and for the selection of currency for the price of a purchase.

## National Unit Specification: support notes (cont)

**UNIT** Using Mathematics in Everyday Situations 1 (Access 2)

***Outcome 3***
Teachers/lecturers may find the following contexts useful to candidates practising measurement.

Tape measures and rulers could be used to measure the length and breadth of furniture, the dimensions of a room, or short distances in circulation space inside or outside the building.

Measuring jugs could be used to measure liquids up to one litre or two pints in volume.

Kitchen scales and measuring spoons could be used to measure dry goods up to one kilogram or two pounds in weight.

It might be useful to introduce a 'pinch' of seasoning and how to measure small volumes in cupfuls.

### GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

An integrated approach to assessment should be used whenever possible. This should involve practical exercises in using basic numeracy skills as they occur naturally in the candidate's learning programme.

Performance evidence for each performance criterion could be gathered from direct observation of the candidate in the learning environment. This evidence may be gathered during the full range of learning activities experienced by the candidate.

Where evidence cannot be gathered from performance alone, for example, ensuring the correct reasoning for the selection of measuring devices, additional evidence should be gathered from the candidate's answers to questions.

***Outcome 1***
Short answer questions could be used to gather evidence for all performance criteria.

Examples are:
- a time of day which is important to the candidate
- a day of the week which is important to the candidate
- the date of an annual event important to the candidate
- the date of a national holiday
- days of the week stated in the correct sequence
- a day of the week to be identified from its date in the monthly calendar
- a time interval in days within a month, answers which include both dates are acceptable
- the correct time read from both 12-hour digital and analogue displays
- the correct time read from a simple timetable.

## National Unit Specification: support notes (cont)

**UNIT** Using Mathematics in Everyday Situations 1 (Access 2)

***Outcome 2***
Practical exercises should be used to gather evidence for all performance criteria.

Examples of practical exercises are:
- identifying a selection of coins and banknotes up to a value of £20
- identifying the necessary coins and banknotes to come to a given sum up to £5
- identifying a correct selection of coins and banknotes to meet or exceed the price of a purchase up to £5
- calculating the change due from a purchase including situations where this is £2 or more.

Questioning by the teacher/lecturer could be used to confirm the candidate's recognition of coins and banknotes when making calculations or selections, to ensure the correct values are not arrived at by chance. Teachers/lecturers should note that it is not necessary to use actual coins and banknotes, simulated money may be used instead.

***Outcome 3***
The candidates are not required to select the units in which the measurements are made. The measuring situations should only require the candidate to measure to a numbered division on the instrument, eg, 300ml, 600g, 6cm.

Note: the use of digital electronic scales is acceptable.

Practical exercise may be used to gather evidence for all the performance criteria. Observation and questioning of the candidate and the candidate's recording of measurements could be used to gather evidence.

### SPECIAL NEEDS

This unit specification is intended to ensure that there are no barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative outcomes for units. For further information on these, please refer to the document *Guidance on Special Assessment Arrangements* (SQA, 2001).

## National Unit Specification: general information

**UNIT** Using Mathematics in Everyday Situations 2 (Access 2)

**NUMBER** D557 08

**CLUSTER** Mathematics (Access 2)

### SUMMARY

This unit is designed to develop further skills in the use of money, time and measurement in everyday living.

### OUTCOMES

1 Tell the time and calculate time intervals.
2 Use money and budget.
3 Use common units to weigh and to measure length and volume.

### RECOMMENDED ENTRY

Entry is at the discretion of the centre.

### CREDIT VALUE

1 credit at Access 2.

**Administrative Information**

**Superclass:** RB

**Publication date:** November 2002

**Source:** Scottish Qualifications Authority

**Version:** 04

## National Unit Specification: general information (cont)

**UNIT** Using Mathematics in Everyday Situations 2 (Access 2)

### CORE SKILLS

This unit gives automatic certification of the following:

| | | |
|---|---|---|
| **Complete core skills for the unit** | None | |
| **Core skills components for the unit** | Using Number | Acc 2 |
| | Critical Thinking | Acc 2 |

Additional information about core skills is published in the *Catalogue of Core Skills in National Qualifications* (SQA, 2001).

## National Unit Specification: statement of standards

## UNIT Using Mathematics in Everyday Situations 2 (Access 2)

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

Tell the time and calculate time intervals.

**Performance criteria**

(a) Times on digital and analogue displays are identified correctly.
(b) Conversion of am and pm to the 24-hour clock and from 24-hour clock is accurate.
(c) Calculation of time intervals within a 12-hour period is accurate.
(d) Calculation of time intervals using a calendar is accurate.

**Evidence requirements**

PC (a) performance evidence of accurately telling the time on digital and analogue displays (clock/watches), each on two occasions.
PC (b) performance evidence of accurate conversion on two occasions:

- am to the 24-hour clock
- pm to the 24-hour clock
- 24-hour clock to am
- 24-hour clock to pm

PC (c) performance evidence of accurate calculation of time intervals on two occasions for each of the following:

- within a 12-hour period as follows:
  - from a complete hour to a complete hour, within a day
  - from a complete hour to another hour plus an additional quarter hour
  - from a complete hour to another hour plus an additional half hour

PC (d) performance evidence will be accurate calculation of calendar time intervals, on two occasions for each of the following:

- number of days within one month
- whole weeks (with Monday being the first day) up to three consecutive months

## National Unit Specification: statement of standards (cont)

**UNIT** Using Mathematics in Everyday Situations 2 (Access 2)

### OUTCOME 2

Use money and budget.

**Performance criteria**

(a) Sources of income and method of payment are identified accurately.
(b) A bill is paid in cash.
(c) Weekly income is budgeted using basic numerical calculations.

**Evidence requirements**

Written and/or oral evidence should be generated from responses to questions and may be recorded by using a checklist.
PC (a) three sources of income and three methods of payment are identified correctly.
PC (b) evidence of payment in excess of £5 for six items, in cash. This will involve totalling the bill, giving the appropriate amount of money and checking the change. A calculator may be used.
PC (c) real or simulated weekly budgeting exercise on a four-week cycle and involving four categories: leisure, travel, housekeeping and saving, should be completed accurately.

### OUTCOME 3

Use common units to weigh and to measure length and volume.

**Performance criteria**

(a) Selection of appropriate units of length, weight and volume for given situations is accurate.
(b) Measurement of length, weight and volume in given units is accurate.
(c) Finding double, half (½) and quarter (¼) of quantities is accurate.

**Evidence requirements**

PC (a) performance evidence will be gathered from the selection of appropriate units for three examples each for length weight and volume. Units with their abbreviations should be selected from:
Length – millimetre, centimetre, metre and kilometre, imperial measures currently in use
Weight – gram, kilogram, imperial measures currently in use
Volume – millilitre, litre, imperial measures currently in use.
PC (b) performance evidence will be generated from accurate measurement on three occasions each for length, weight and volume.
PC (c) performance evidence will be generated by finding double, half (½) and quarter (¼) of quantities. Candidates should know the notation ½ and ¼.

## National Unit Specification: support notes

## UNIT Using Mathematics in Everyday Situations 2 (Access 2)

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 CONTENT AND CONTEXT FOR THIS UNIT

This unit should be seen in the context of the wide range of skills needed for daily living and should be integrated into practical activities in the learning environment wherever possible.

A wide variety of content and contexts for practising money handling and measuring skills should be available to candidates undertaking learning programmes:

- sources of income: allowances, benefits, jobs, pocket money
- methods of payment: cash, cash cards, cheques, postal orders, stamps
- paying for meals, travel, shopping, leisure activities, mail-order items, hire purchase instalments, contribution to keep and/or rent.
- checking of prices charged and change given
- saving and budgeting
- estimation, price comparison and value for money could be introduced in relation to spending and saving activities

The common units which should be included with their abbreviations are:

- length – millimetre, centimetre, metre and kilometre, imperial measures currently in use
- weight – gram, kilogram, imperial measures currently in use
- volume – millilitre, litre, imperial measures currently in use

Candidates should be able to find double a quantity, half of a quantity and quarter of a quantity. They should know the notation ½ and ¼. For example, a dish to serve 4 people requires 400g of flour. What does the same dish need for 2 people or for 8 people?

### GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

This unit may be presented in an activity-based environment, using a programme of practical exercises relating to the candidate's programme of learning. The outcomes should not be delivered in isolation, but should be integrated within the candidate's learning programme.

It would be beneficial if opportunities were made available, depending on the activity, for the candidate to work individually, in pairs or in small groups.

The opportunities chosen to develop measuring skills can be based on the candidate's personal, social and work experiences, role-play, assignments and discussion. Teachers/lecturers may find it useful to liaise with staff over a cross-section of practical learning programmes to ensure candidates relate and transfer measuring skills. This may include vocational areas such as Construction, Home Economics, Consumer Studies, Woodworking, Hospitality, as well as Personal and Social Education Programmes.

## National Unit Specification: support notes (cont)

**UNIT** Using Mathematics in Everyday Situations 2 (Access 2)

***Outcome 1***
Practical and simulated experiences in the candidate's programme of learning, as well as everyday social and work experiences, will provide opportunities to acquire time skills.

***Outcome 2***
The candidate should have opportunities in simulated and real-life experiences to acquire the skills of using money and budgeting. These opportunities will be found in a wide range of everyday learning activities.

***Outcome 3***
Candidates should be given a wide range of measuring experiences in practical personal learning programmes to develop the skills to use common units of length accurately.

### GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

An integrated approach to assessment should be used, involving practical exercises as they occur naturally in the candidate's learning programme.

Assessment procedures for all outcomes may consist of practical exercises and short answer questions.

An observation checklist may be used to record evidence of the candidate's performance during practical activities, and to structure questioning of candidates.

### SPECIAL NEEDS

This unit specification is intended to ensure that there are no barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative outcomes for units. For further information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements* (SQA, 2001).

## National Unit Specification: general information

**UNIT** Using Mathematics in Everyday Situations 3 (Access 2)

**NUMBER** D558 08

**CLUSTER** Mathematics (Access 2)

### SUMMARY

This unit is designed to develop skills in interpreting, conveying and using quantifiable information in the form of tables, charts, graphs, maps, plans and shapes.

### OUTCOMES

1 Interpret and convey information in the form of basic tables, charts and graphs.
2 Use information from basic maps and plans and construct basic two-dimensional shapes from instructions.

### RECOMMENDED ENTRY

Entry is at the discretion of the centre.

### CREDIT VALUE

1 credit at Access 2.

**Administrative Information**

**Superclass:** RB

**Publication date:** September 1999

**Source:** Scottish Qualifications Authority

**Version:** 02

## National Unit Specification: general information (cont)

**UNIT** Using Mathematics in Everyday Situations 3 (Access 2)

### CORE SKILLS

This unit gives automatic certification of the following:

| | | |
|---|---|---|
| **Complete core skills for the unit** | None | |
| **Core skills components for the unit** | Using Graphical Information | Acc 2 |
| | Critical Thinking | Acc 2 |

Additional information about core skills is published in the *Catalogue of Core Skills in National Qualifications* (SQA, 2001).

## National Unit Specification: statement of standards

## UNIT Using Mathematics in Everyday Situations 3 (Access 2)

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

Interpret and convey information in the form of basic tables, charts and graphs.

**Performance criteria**
(a) Read and use information from basic tables, charts and graphs.
(b) Convey information in the form of basic tables, charts and graphs.

**Evidence requirements**
Written and/or oral evidence and performance evidence.
PC (a) on two occasions, read and use information from each of a basic table, chart and graph.
PC (b) on two occasions, complete each of a basic table, chart and graph from given information.

### OUTCOME 2

Use information from basic maps and plans and construct basic two-dimensional shapes from instructions.

**Performance criteria**
(a) Extract and use information from basic maps and plans.
(b) Follow instructions to construct simple two-dimensional shapes.

**Evidence requirements**
PC (a) on two occasions, performance evidence of extracting and using information from each of a basic map and plan.
PC (b) on two occasions, performance evidence of constructing, on squared paper, a basic two-dimensional shape.

## National Unit Specification: support notes

**UNIT** Using Mathematics in Everyday Situations 3 (Access 2)

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 CONTENT AND CONTEXT FOR THIS UNIT

The tables, charts, graphs, maps, plans and shapes used should be very basic. For example:

Table – timetable, price list
Chart and graph – pictograph, bar chart
Map – very simple map of the grounds of the centre, local area, town centre
Plan – very simple plan of a room, garden
Shape – rectangle, square, possibly in combination

### GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

This unit may be presented in an activity-based environment, using a programme of practical exercises relating to the candidate's programme of learning. The outcomes should not be delivered in isolation, but should be integrated within the candidate's learning programme. Activities will include discussions and assignments, worksheets and factsheets.

It would be beneficial if opportunities were made available, depending on the activity, for the candidates to work individually, in pairs or in small groups.

Throughout the unit there is likely to be a high level of teacher/lecturer input, encouraging candidates in acquiring the necessary mathematical skills. All materials should be appropriate to the needs and abilities of the candidates.

***Outcome 1***
There are opportunities for this to be integrated into a wide variety of learning and teaching contexts, such as:

- timetables related to visits, work placements
- using ready reckoners and price lists
- pictographs and bar charts showing information of interest to candidates.

Commercially produced games could be incorporated into the programme.

## National Unit Specification: support notes (cont)

**UNIT** Using Mathematics in Everyday Situations 3 (Access 2)

***Outcome 2***
Candidates could relate maps and plans to other activities, such as:

- local maps and plans picking out routes and features by following instructions and by giving directions
- planning room layouts, garden, play area

The two-dimensional shapes should be constructed on squared paper and may be based on rectangles, squares, triangles.

Links can be made with other practical work such as in Managing Environmental Resources, Practical Craft Skills, Home Economics.

### GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Assessment should be a natural part of the practical work within the candidate's learning programme. Observation of the candidate at work and questioning of the candidate, as well as any oral/written work, may be used to gather necessary evidence.

### SPECIAL NEEDS

This unit specification is intended to ensure that there are no barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative outcomes for units. For further information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements* (SQA, 2001).