



# **Access 2 Mathematics — draft Course rationale and summary**

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# Course rationale

## Background

All new and revised National Courses reflect Curriculum for Excellence values, purposes and principles. They offer flexibility, provide more time for learning, more focus on skills and applying learning, and scope for personalisation and choice.

In this Course, and its component Units, there will be an emphasis on skills development and the application of those skills. Assessment approaches will be proportionate, fit for purpose and will promote best practice, enabling learners to achieve the highest standards they can.

This Course provides learners with opportunities to continue to acquire and develop the attributes and capabilities of the four capacities, as well as skills for learning, skills for life and skills for work.

All Courses provide opportunities for learners to develop breadth, challenge and application, but the focus and balance of the assessment will be appropriate for the subject area.

## **Relationship between the Course and Curriculum for Excellence values, purposes and principles**

The Access 2 Mathematics Course builds on the principles and practice and experiences and outcomes of Mathematics<sup>1</sup> and principles and practice and experiences and outcomes of Numeracy across learning<sup>2</sup>.

Mathematics and numeracy equip us with many of the skills required for learning, life and work. Engaging in mathematics develops logical thinking, problem solving, and the ability to think in different ways. It uses the language of numbers and symbols to allow us to become numerate and to communicate ideas clearly and concisely.

Being numerate helps us to function responsibly in everyday life and contribute effectively to society, allowing us to make sense of the world around us and to manage our lives. Mathematics and numeracy also support young people to access the wider curriculum and to increase their opportunities within the world of work.

Through the study of Mathematics at Access 2, learners are encouraged to develop the confidence and ability to tackle everyday problems using mathematics and numeracy. Learners will develop the confidence to make informed choices based on their interpretation of data and the results of calculations, which in turn will encourage their participation in everyday activities.

This Course also provides the skills, knowledge and attributes that are complementary for learners in other areas of study, such as the technologies, science and social subjects.

## **Purpose and aims of the Course**

The Course will help learners to become numerate, to make sense of the world, to function responsibly and independently in everyday life and to contribute effectively to society.

Mathematics at Access 2 includes the exploration and application of number and number patterns; shape and relationships; and money, time and measurement in everyday life. It allows individuals to use mathematics and numeracy to solve real-life problems and make informed choices.

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<sup>1</sup> Mathematics:

<http://www.ltscotland.org.uk/learningteachingandassessment/curriculumareas/mathematics/principlesandpractice/index.asp>

<sup>2</sup> Numeracy:

<http://www.ltscotland.org.uk/learningteachingandassessment/learningacrossthecurriculum/responsibilityofall/numeracy/principlesandpractice/index.asp>

The Course will motivate and challenge learners by enabling them to select and use mathematical and numerical skills in a variety of real-life situations. The Course will develop confidence in the subject and a positive attitude towards further study in mathematics and other subject areas which use mathematics.

The aims of this Course are to enable learners to:

- ◆ know when to use mathematics and numeracy in everyday situations
- ◆ select the most appropriate mathematical and numerical skills to solve everyday problems
- ◆ use a range of numeracy skills involving number, money, time and measurement to make choices for personal life and life in the community
- ◆ recognise and use shape, patterns and relationships in everyday life
- ◆ interpret data and the results of calculations to make informed choices

In addition, learners will have the opportunity to develop broad generic skills including thinking skills; communication and application of technology.

This Course is also designed to develop learners' skills for learning, skills for life and skills for work in a contextualised, engaging and enjoyable way.

## **Information about typical learners who might do the Course**

The Course is suitable for all learners who want to develop their mathematical and numerical skills. It is suitable for learners with a general interest in the subject and for those wanting to progress to higher levels of study.

The Course may be suitable for those wishing to work towards a Mathematics qualification for the first time.

This qualification will allow learners to consolidate and further extend their mathematical and numerical skills developed through the experiences and outcomes for Mathematics and Numeracy across learning.

This Course takes account of the needs of all learners by providing sufficient flexibility to enable learners to achieve in different ways and at a different pace.

On completing the Course, learners will have developed the confidence to know when to use mathematics and numeracy in everyday situations, select the most appropriate mathematical and numerical skills to use, know how to apply those skills, and then make informed choices based on their interpretation of the results.

*successful learner, confident individual, responsible citizen, effective contributor*

On successful completion of this Course, the learner could progress to:

- ◆ other Units, Courses and Awards at Access 2
- ◆ Numeracy Unit (SCQF level 3)
- ◆ Access 3 Mathematics Course
- ◆ other Units and Courses at Access 3

The numeracy skills within this Mathematics Course have applications in many other subject areas. Skills developed in this Course support progression in other curriculum areas, as well as in Skills for Work and National Progression Awards.

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# Course summary

## Course title: Access 2 Mathematics

## SCQF level 2 (18 SCQF credit points)

### Course outline

#### Mandatory Units

Mathematics: Number and Number Processes (Access 2) (6 SCQF credit points)

Mathematics: Personal Mathematics (Access 2) (6 SCQF credit points)

#### Optional Units (any two from the following)

Mathematics: Money (Access 2) (3 SCQF credit points)

Mathematics: Time (Access 2) (3 SCQF credit points)

Mathematics: Measurement (Access 2) (3 SCQF credit points)

To provide flexibility of choice and opportunities for lateral progression, the Course comprises **two** mandatory Units and **two** optional Units from the list above.

### Course structure and conditions of award

This Course consists of a combination of mandatory and optional Units. Learners who complete the mandatory Units and any combination of optional Units will be able to demonstrate their ability in the same skills. The mandatory Units provide breadth by introducing learners to the range of skills and contexts available within mathematics. The optional Units provide depth, with scope for personalisation and choice, and provide learners with opportunities to apply their mathematical and numerical skills to solve real-life problems.

Some learners may choose to complete additional optional Units from within the Course. Learners will benefit from this opportunity to extend their learning.

This Course enables learners to develop skills in deciding when to use mathematics and numeracy in everyday situations to solve everyday problems, and to interpret data and the results of calculations to make informed choices.

Units are statements of standards for assessment and not programmes of learning and teaching. They can be delivered in a variety of ways.

Units can be taught sequentially or in parallel to each other. However, learning and teaching approaches should provide opportunities to integrate skills where possible.

**Mathematics: Number and Number Processes (Access 2)**

In this Unit, learners will recognise and use whole numbers, number patterns, place value and very simple decimals (such as £2.25 and 3.5m) and fractions (such as  $\frac{1}{2}$  and  $\frac{1}{4}$ ) used in everyday life. Learners will select and use basic numerical notation and number operations, including addition, subtraction, multiplication and division, to carry out calculations in familiar everyday contexts.

**Mathematics: Personal Mathematics (Access 2)**

In this Unit, learners will recognise and use basic shape, patterns and relationships to organise and plan a range of everyday activities. This will include interpreting and communicating information to make informed choices. Learners will also develop an awareness of chance and uncertainty in familiar everyday contexts to make informed choices.

**Mathematics: Money (Access 2)**

In this Unit, learners will apply a basic knowledge and understanding of money and finance to solve a range of familiar real-life problems. By solving real-life problems, learners will make informed choices by recognising and using coins and banknotes, carrying out calculations, comparing costs, determining affordability and managing personal finance.

**Mathematics: Time (Access 2)**

In this Unit, learners will apply a basic knowledge and understanding of time to solve a range of familiar real-life problems. Learners will solve real-life problems and make informed choices by using appropriate resources such as timetables and clocks to plan the timing of events and activities and to carry out calculations involving time.

**Mathematics: Measurement (Access 2)**

In this Unit, learners will apply a basic knowledge and understanding of measurement to solve a range of simple and familiar real-life problems. This will include selecting and using a range of measuring instruments, estimating, reading scales and comparing measures involving length, weight, volume and temperature to make informed choices.

To achieve the Access 2 Mathematics Course, learners must pass all of the required Units. The required Units are shown in the Course outline section.

Access 2 Courses are not graded.

## **Assessment**

All Units are internally assessed against the requirements shown in Unit specifications.

They will be assessed pass/fail within centres.

SQA will provide rigorous external quality assurance, including external verification, to ensure assessment judgements are consistent and meet national standards.

Exemplification of possible approaches for Units will be provided in the *National Assessment Resource*.

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