



National 3  
Course  
Specification



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# National 3 Applications of Mathematics Course Specification (C844 73)

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Please refer to the note of changes at the end of this Course Specification for details of changes from previous version (where applicable).

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## Course outline

**Course title:** National 3 Applications of Mathematics

**SCQF:** level 3 (18 SCQF credit points)

**Course code:** C844 73

### Mandatory Units

|                |  |                             |
|----------------|--|-----------------------------|
| <b>HV7Y 73</b> | <b>Applications of Mathematics: Manage Money and Data<br/>(National 3)</b>     | <b>6 SCQF credit points</b> |
| <b>HV80 73</b> | <b>Applications of Mathematics: Shape, Space and Measures<br/>(National 3)</b> | <b>6 SCQF credit points</b> |
| <b>H225 73</b> | <b>Numeracy (National 3)</b>   | <b>6 SCQF credit points</b> |

### Recommended entry

Entry to this Course is at the discretion of the centre. However, learners would normally be expected to have attained the skills, knowledge and understanding required by the following or equivalent qualifications and/or experience:

- ◆ National 2 Lifeskills Mathematics Course

In terms of prior learning and experience, relevant experiences and outcomes may also provide an appropriate basis for doing this Course.

### Core Skills

Achievement of this Course gives automatic certification of the following:

Complete Core Skill                      Numeracy at SCQF level 3

### Progression

This Course or its Units may provide progression to:

- ◆ other qualifications in mathematics or related areas
- ◆ further study, employment and/or training

Further details are provided in the Rationale section.

### Equality and inclusion

This Course Specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence. For further information, please refer to the *Course Support Notes*.

## **Rationale**

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 National 3 Applications of Mathematics Course builds on the principles and practice and experiences and outcomes of Mathematics and Numeracy.

Mathematics is important in everyday life, allowing us to make sense of the world around us and to manage our lives. Using mathematics equips us with the skills we need to interpret and use information, to model real-life situations, to simplify and solve problems, to assess risk and to make informed decisions.

Because mathematics is rich and stimulating, it engages and fascinates learners of all ages, interests and abilities. Learning mathematics develops logical thinking, problem-solving skills and the ability to think in general terms. It uses a universal language of numbers and symbols, which allows us to communicate ideas in a clear and concise way.

Mathematics equips us with many of the skills required for life, learning and work. Understanding the part that mathematics plays in almost all aspects of life is crucial. This reinforces the need for mathematics to play an integral part in lifelong learning and be appreciated for the richness it brings.

This Course allows learners to acquire skills for learning, skills for life and skills for work and develop the attributes and capabilities of the four capacities. The Course also develops the skills, knowledge and understanding complementary for learners in other curriculum areas such as: technology, health and wellbeing, science, and social studies.

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

The National 3 Applications of Mathematics Course will help learners to become numerate, to make sense of the world around them and to function responsibly and independently in everyday life.

The Course, which includes the freestanding Unit in Numeracy at SCQF level 3, will motivate and challenge learners by enabling them to select and apply mathematical and numerical skills in a variety of mathematical and real-life situations.

The Course includes the study of number, money, shape, space and measurement in everyday life, allowing individuals to interpret data and tackle real-life situations. It is designed to develop the learners' skills relevant to learning, life and work in an engaging and enjoyable way. The Course develops 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:

- ◆ interpret real-life situations involving mathematics
- ◆ investigate the use of basic mathematical ideas and number processes in real-life contexts
- ◆ select and apply basic mathematical and numeracy skills in real-life contexts
- ◆ interpret and use the results of calculations, measurements and data to make informed decisions
- ◆ communicate mathematical information in an appropriate way

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

This Course is suitable for 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 is suitable for learners who have experienced learning across the Mathematics experiences and outcomes or for those wishing to study Mathematics for the first time. It takes account of the needs of all learners and provides sufficient flexibility to enable learners to achieve in different ways.

On completing the Course, learners will have developed the confidence to know when to use mathematics and numeracy in real-life 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.

Mathematics has applications in many other subjects, and skills developed in this Course support progression in mathematics and in other curriculum areas, as well as in Skills for Work and National Progression Awards.

# Course structure and conditions of award

## Course structure

This Course enables learners to acquire mathematical and numerical skills and apply them in a variety of real-life situations. In addition, learners will develop thinking skills and will gain experience in making informed decisions.

The Course includes the freestanding Unit in Numeracy at SCQF level 3.

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

### **Applications of Mathematics: Manage Money and Data (National 3)**

The general aim of this Unit is to enable learners to apply their skills, knowledge and understanding of mathematics and numeracy to manage money and data in real-life contexts. Learners will build on their mathematical and numerical skills to determine factors affecting income and expenditure, budgeting and saving. Learners will also organise, present and interpret data based on real-life contexts.

### **Applications of Mathematics: Shape, Space and Measures (National 3)**

The general aims of this Unit is to enable learners to apply their skills, knowledge and understanding of shape, space and measures in real-life contexts. Learners will build on their mathematical and numerical skills by using measures and elementary geometry to tackle real-life situations.

### **Numeracy (National 3)**

The general aim of this Unit is to develop learners' numerical and information handling skills to solve simple, real-life problems involving number, money, time and measurement. As learners tackle real-life problems, they will use their knowledge of number processes, information handling and probability to make informed decisions.

## Conditions of award

To achieve the National 3 Applications of Mathematics Course, learners must pass all of the required Units. The required Units are shown in the Course outline section.

National 3 Courses are not graded.

## Skills, knowledge and understanding

Full skills, knowledge and understanding for the Course are given in the *Course Support Notes*. A broad overview of the subject skills, knowledge and understanding that will be covered in the Course is given in this section.

The Course will develop learners' ability to:

- ◆ interpret real-life situations involving mathematics
- ◆ investigate the use of basic mathematical ideas and number processes in real-life contexts
- ◆ select and apply basic mathematical and numeracy skills in real-life contexts
- ◆ interpret and use the results of calculations, measurements and data to make informed decisions
- ◆ communicate mathematical information in an appropriate way

Skills, knowledge and understanding to be included in the Course will be appropriate to the SCQF level of the Course. The SCQF level descriptors give further information on characteristics and expected performance at each SCQF level ([www.sqa.org.uk/scqf](http://www.sqa.org.uk/scqf)).

# Assessment

Further information about assessment for the Course is included in the *Course Support Notes*.

## Unit assessment

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

They can be assessed on an individual Unit basis or by using other approaches which combine the assessment for more than one Unit.

They will be assessed on a pass/fail basis within centres. SQA will provide rigorous external quality assurance, including external verification, to ensure assessment judgments are consistent and meet national standards.

The assessment of the Units in this Course will be as follows.

### **Applications of Mathematics: Manage Money and Data (National 3)**

Learners who complete the Unit will be able to:

- ◆ manage money in basic real-life contexts
- ◆ manage data in basic real-life contexts

### **Applications of Mathematics: Shape, Space and Measures (National 3)**

Learners who complete the Unit will be able to:

- ◆ use shape and space in basic real-life contexts
- ◆ use measures in basic real-life contexts

### **Numeracy (National 3)**

Learners who complete the Unit will be able to:

- ◆ use numerical skills to solve simple, real-life problems involving money/time/measurement
- ◆ interpret graphical data and situations involving probability to solve simple, real-life problems involving money/time/measurement

# Development of skills for learning, skills for life and skills for work

It is expected that learners will develop broad, generic skills through this Course. The skills that learners will be expected to improve on and develop through the Course are based on SQA's *Skills Framework: Skills for Learning, Skills for Life and Skills for Work* and drawn from the main skills areas listed below. These must be built into the Course where there are appropriate opportunities.

## 2 Numeracy

- 2.1 Number processes
- 2.2 Money, time and measurement
- 2.3 Information handling

## 5 Thinking skills

- 5.2 Understanding
- 5.3 Applying

Amplification of these skills is given in SQA's *Skills Framework: Skills for Learning, Skills for Life and Skills for Work*. The level of these skills will be appropriate to the level of the Course. Further information on building in skills for learning, skills for life and skills for work for the Course is given in the *Course Support Notes*.

Numeracy skills shown in this National Course provide automatic certification of the Core Skill: Numeracy at SCQF level 3.

# Administrative information

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**Published:** October 2017 (version 2.0)

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## History of changes to National Course Specification

| Course details | Version | Description of change   | Authorised by                      | Date         |
|----------------|---------|---|------------------------------------|--------------|
| C744 73        | 1.1     | Core skills information added                                 | Qualifications Development Manager | June 2013    |
| C844 73        | 2.0     | Lifeskills Mathematics changed to Applications of Mathematics | Qualifications Manager             | October 2017 |
|                |         |   |                                    |              |
|                |         |   |                                    |              |

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Note: You are advised to check SQA's website ([www.sqa.org.uk](http://www.sqa.org.uk)) to ensure you are using the most up-to-date version of the Course Specification.

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