National 5 Course Specification

National 5 Lifeskills Mathematics Course Specification (C744 75)

Valid from August 2013

First edition: April 2012
Revised: June 2013, version 1.1

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

Course outline

Course title: National 5 Lifeskills Mathematics

SCQF: level 5 (24 SCQF credit points)

Course code: C744 75

Mandatory Units

Lifeskills Mathematics:

H221 75	**Managing Finance and Statistics (National 5)**	**6 SCQF credit points**
H224 75	**Lifeskills Mathematics: Geometry and Measures (National 5)**	**6 SCQF credit points**
H225 75	**Numeracy (National 5)**	**6 SCQF credit points**

Course assessment **6 SCQF credit points**

This Course includes six SCQF credit points to allow additional time for preparation for Course assessment. The Course assessment covers the added value of the Course. Further information on the Course assessment is provided in the Assessment section.

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 by equivalent qualifications and/or experience:

- National 4 Lifeskills Mathematics Course or relevant component Units

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 5

Progression

This Course or its Units may provide progression to:

- other qualifications in mathematics or related areas
- further study, employment 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 5 Lifeskills 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 enables us to model real-life situations and make connections and informed predictions. It equips us with the skills we need to interpret and analyse information, simplify and solve problems, assess risk and make informed decisions.

Because mathematics is rich and stimulating, it engages and fascinates learners of all ages, interests and abilities. Learning mathematics develops logical reasoning, analysis, problem-solving skills, creativity and the ability to think in abstract ways. It uses a universal language of numbers and symbols, which allows us to communicate ideas in a concise, unambiguous and rigorous 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 and develop skills for learning, skills for life and skills for work, as well as the attributes and capabilities of the four capacities. For example: success in mathematical learning and activity leads to increased confidence as an individual in everyday situations; being numerically capable, especially in financial matters, helps towards becoming a responsible citizen; and being able to plan and organise will help in becoming an effective contributor.

The skills, knowledge and understanding in the Course support learning in other curriculum areas, such as technology, health and wellbeing, science, and social studies.

Purpose and aims of the Course

The purpose of the National 5 Lifeskills Mathematics Course is to motivate and challenge learners by enabling them to think through real-life situations involving mathematics and to form a plan of action based on logic.

The Course develops confidence and independence in being able to handle information and mathematical tasks in both personal life and in the workplace. The Course allows learners to draw conclusions, assess risk and justify decisions based on data presented in a variety of forms.

The mathematical skills within this Course are underpinned by numeracy, and designed to develop learners' mathematical reasoning skills relevant to learning, life and work in an engaging and enjoyable way.

The Course aims to:

- motivate and challenge learners by enabling them to select and apply mathematical techniques to tackle a range of real-life problems and situations
- develop the ability to analyse a range of real-life problems or situations with some complex features involving mathematics
- develop confidence and independence in the subject and a positive attitude towards the use of mathematics in real-life situations
- develop the ability to select, apply, combine and adapt mathematical operational skills to new and unfamiliar situations in life and work to an appropriate degree of accuracy
- develop the ability to use mathematical reasoning skills to generalise, build arguments, draw logical conclusions, assess risk, make informed decisions
- develop the ability to use a range of mathematical skills to analyse, interpret and present a range of information
- communicate mathematical information in a variety of forms
- develop the ability to think creatively and in abstract ways

Information about typical learners who might do the Course

This Course would be suitable for learners who have experienced breadth and depth of learning across the Mathematics experiences and outcomes, or who have attained the National 4 Lifeskills Mathematics Course or an equivalent qualification/experience. It would be particularly suitable for learners who can respond to a level of challenge, and who can apply what they have learned in new and unfamiliar situations.

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

- other qualifications in mathematics or related areas
- Core Skills Numeracy Unit (SCQF level 6)

Lifeskills Mathematics has applications in many subject areas, and skills developed in this Course could also support progression in other curriculum areas. These skills can also support progression into Skills for Work Courses, National Progression Awards, National Certificate Group Awards, and employment.

Course structure and conditions of award

Course structure

This Course will develop skills for learning, life and work, through context and application-led learning. Through real-life contexts, learners will acquire and be able to apply mathematical operational skills directly relevant to life and work, and to appreciate the role of mathematical ideas in the world. In addition, learners will develop mathematical reasoning skills. They will learn how to draw conclusions, make and justify decisions. The Course includes the freestanding Unit in Numeracy at SCQF level 5.

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

In addition to the Course assessment, the Course has three mandatory Units, totalling 24 SCQF credit points.

Lifeskills Mathematics: Managing Finance and Statistics (National 5)
The general aim of this Unit is to develop skills that focus on the use of mathematical ideas and valid strategies that can be applied to managing finance and statistics in real-life contexts which may be new to the learner. This includes skills in analysing financial positions, budgeting as well as organising and presenting data to justify solutions and/or draw conclusions. The Outcomes cover aspects of finance and statistics in real-life situations requiring mathematical reasoning.

Lifeskills Mathematics: Geometry and Measures (National 5)
The general aim of this Unit is to develop skills that focus on the use of mathematical ideas and valid strategies that can be applied to geometry and measurement in real-life contexts which may be new to the learner. This includes skills in analysing and using geometry and measures to determine and justify solutions to real-life problems. The Outcomes cover aspects of geometry and measurement in real-life situations requiring reasoning.

Numeracy (National 5)
The general aim of this Unit is to develop learners' numerical and information handling skills to solve real-life problems involving number, money, time and measurement. At this level, real-life problems will have some complex features and be set in contexts which are likely to be unfamiliar to the learner. As learners tackle real-life problems, they will decide what numeracy and information handling skills to use, and how to apply those skills to an appropriate level of accuracy. Learners will also interpret graphical data and use their knowledge and understanding of probability to identify solutions to solve real-life problems involving money, time and measurement. Learners will use their solutions to make and justify decisions.

Conditions of award

To gain the award of the Course, the learner must pass all of the Units as well as the Course assessment. The required Units are shown in the Course outline section. Course assessment will provide the basis for grading attainment in the Course award.

Skills, knowledge and understanding

Further information on the assessment of the skills, knowledge and understanding for the Course is given in the *Course Assessment Specification*. A broad overview of the mandatory subject skills, knowledge and understanding that will be assessed in the Course is given in this section.

This Course will develop learners' ability to:

- analyse real-life situations and problems involving mathematics
- identify valid mathematical operational skills to tackle real-life situations or problems
- use a range of mathematical operational skills to an appropriate degree of accuracy
- use mathematical reasoning skills to draw conclusions or justify 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).

Assessment

Information about assessment for the Course is included in the *Course Assessment Specification*, which provides full details including advice on how a learner's overall attainment for the Course will be determined.

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.

Lifeskills Mathematics: Managing Finance and Statistics (National 5)
Learners who complete the Unit will be able to:

- use reasoning skills and financial skills linked to real-life contexts
- use reasoning skills and statistical skills linked to real-life contexts

Lifeskills Mathematics: Geometry and Measures (National 5)
Learners who complete the Unit will be able to:

- use reasoning skills and measurement skills linked to real-life contexts
- use reasoning skills and geometric skills linked to real-life contexts

Numeracy (National 5)
Learners who complete the Unit will be able to:

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

Exemplification of possible assessment approaches for these Units is provided in the *National Assessment Resource.*

Course assessment

Courses from National 4 to Advanced Higher include assessment of added value[1]. At National 5, Higher and Advanced Higher, the added value will be assessed in the Course assessment. The added value for the Course must address the key purposes and aims of the Course, as defined in the Course rationale. It will do this by addressing one or more of breadth, challenge or application.

[1] Definitions can be found here: www.sqa.org.uk/sqa/58409.html

In the National 5 Lifeskills Mathematics Course, added value will focus on:

- breadth
- challenge
- application

The learner will draw on, apply and extend the skills they have learned during the Course. This will be assessed within a question paper[2], requiring application of the breadth of knowledge and skills acquired from across the Units in more challenging and in unfamiliar situations. As an aid to meeting these aims, skills in using a calculator will be developed and a calculator will be permitted in part of the assessment strategy.

[2] Definitions can be found here: www.sqa.org.uk/sqa/58409.html

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

5.3 Applying
5.4 Analysing and evaluating

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 5.

Administrative information

Published: June 2013 (version 1.1)

History of changes to National Course Specification

Course details	Version	Description of change	Authorised by	Date
	1.1	Core skills information added	Qualifications Development Manager	June 2013

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