

Gleniffer High School Maths Department
Senior Phase Course Rationales

Level	National 3
Course outline	<p>Recommended entry level</p> <p>Completion of the Second Level units and some Third Level units.</p> <p>The National 3 Lifeskills Mathematics course is designed to play a useful part in your personal development and overall education.</p> <p>It provides you with skills which are helpful in other school subjects and which will be important for your everyday life, now and in the world of work.</p> <p>The course helps you to learn to appreciate mathematics and understand its importance in today's world.</p> <p>For many Further Education courses this is a compulsory subject for entry and employers very often require job applicants to have a qualification in mathematics.</p> <p>National 3 consists of three compulsory units:</p> <p>Lifeskills Mathematics: Shape, Space and Measures</p> <p>Lifeskills Mathematics: Manage Money and Data</p> <p>Numeracy</p> <p>The emphasis in this course is very much on describing, tackling and solving problems that arise in real life using mathematical knowledge and techniques.</p>
Assessment	NATIONAL 3: All units are internally assessed on a pass/fail basis against requirements shown by the SQA. This will be subject to external Quality Assurance by the SQA.
Progression from S4 to S5	Progression from National 3 Mathematics into National 4 Mathematics or Lifeskills Mathematics.

Level	National 4, National 5
Course outline	<p>Recommended entry level</p> <p>National 4 Completion of the Third Level units and some Fourth Level units.</p> <p>National 5 Completion of all Fourth Level units.</p> <p>The National 4 and National 5 Mathematics courses are designed to play a useful part in your personal development and overall education.</p> <p>They provide you with skills which are helpful in other school subjects and which will be important for your everyday life, now and in the world of work.</p> <p>These courses help you to learn to appreciate mathematics and understand its importance in today's world.</p> <p>For many Further Education courses this is a compulsory subject for entry and employers very often require job applicants to have a qualification in mathematics.</p> <p>National 4 consists of three compulsory units:</p> <p>Expressions and Formulae Relationships Numeracy</p> <p>National 5 also consists of three compulsory units:</p> <p>Expressions and Formulae Relationships Applications</p> <p>The emphasis in both courses is very much on describing, tackling and solving problems that arise in real life using mathematical knowledge and techniques.</p>
Assessment	<p>NATIONAL 4: All units are internally assessed on a pass/fail basis against requirements shown by the SQA. This will be subject to external Quality Assurance by the SQA.</p> <p>At National 4 there is an additional Added Value Unit. It will address skills and concepts covered across the three compulsory units. This will also be assessed internally.</p>

	<p>NATIONAL 5:</p> <p>At National 5 there is a final overall course assessment set by the SQA and assessed externally.</p>
Progression from S4 to S5	<p>Progression from National 4 Mathematics into National 5 Mathematics or Lifeskills Mathematics.</p> <p>Progression from National 5 Mathematics into Higher Mathematics.</p>

Level	Higher
Recommended Entry	A pass at National 5 Mathematics.
Course Aims and Purpose	<p>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.</p> <p>The Course aims to:</p> <ul style="list-style-type: none"> • motivate and challenge learners by enabling them to select and apply mathematical techniques in a variety of mathematical and real-life situations • develop confidence in the subject and a positive attitude towards further study in mathematics • deliver in-depth study of mathematical concepts and the ways in which mathematics describes our world • develop skills in manipulation of abstract terms in order to solve problems and to generalise • allow learners to interpret, communicate and manage information in mathematical form, skills which are vital to scientific and technological research and development • deepen the learner's skills in using mathematical language and to explore mathematical ideas.
Course Details	<p>What skills will you develop?</p> <ul style="list-style-type: none"> • understanding and applying mathematical skills in algebra, geometry, trigonometry, and statistics • simplifying and solving problems • selecting and applying mathematical techniques to real-life contexts • making connections and informed predictions • using mathematical language and exploring mathematical ideas • resilience and confidence in problem-solving • analytical and evaluative skills • interpreting, communicating and managing information in mathematical form • logical reasoning skills

- assessing risk and making informed decisions
- creativity and the ability to think in abstract ways
- the manipulation of abstract terms to solve problems and generalise

What will you experience during the course?

- active and independent learning will develop confidence and self-motivation as learners experience a range of tasks and activities
- space for personalisation and choice for developing areas of interest
- embedding literacy skills by learning to use mathematical language and abstract terms
- applying learning to real-life situations and to course work in other subjects
- a blend of classroom approaches including whole class, small group or one to one discussions; direct interactive teaching

Course Structure

The course consists of three units:

Expressions & Formula

Relationships and Calculus

Applications

For each outcome there is a Unit Test.

The Unit Tests will be completed in October, January and April.

The Course Assessment is the final exam in May and consists of two Question Papers (exams marked by the SQA) and is graded A to D:

Paper 1 – Non Calculator (1hr 10 minutes) worth 60 marks

Paper 2 – Calculator (1.5 hrs) worth 70 marks

To gain the Higher award, learners must pass all Units and the Course Assessment.