

# Mathematics

## National 4

### Why take this course?

Mathematics is important in our everyday life. It equips us with the skills we need to interpret and analyse information, simplify and solve problems, assess risk and make informed decisions. It uses a universal language of numbers and symbols which allows us to communicate ideas in a concise, unambiguous and rigorous way. National 4 Mathematics will give you the building blocks necessary or desirable for many careers.

### To succeed in this course, you need...

Your knowledge and understanding should be secure at Mathematics level 3. You will be expected to do a regular practice and consolidation of taught topics out with lesson time and you will need resilience and perseverance to cope with the problem solving in the course.

### Course structure and Content

#### Expressions and Formulae

The general aim of this Unit is to develop your skills linked to mathematical expressions and formulae. These include the manipulation of abstract terms, the simplification of expressions and the evaluation of formulae. The Outcomes cover aspects of number, algebra, geometry and reasoning.

#### Relationships

The general aim of this Unit is to develop your skills linked to mathematical relationships. These include solving and manipulating equations, working with graphs and carrying out calculations on the lengths and angles of shapes. The Outcomes cover aspects of algebra, geometry, trigonometry and reasoning.

#### Applications

The general aim of this Unit is to develop your skills linked to applications of mathematics. These include using trigonometry, geometry, number processes and statistics within real-life contexts. The Outcomes cover aspects of these skills and also skills in reasoning.

### Course Assessment

National 4 is internally assessed. You will be assessed in class for each of the three units when the work is completed. It is a requirement that you pass these and depending on changes made by SQA an Added Value exam which assesses the complete course.

### Essentials

You need a scientific calculator.

### Where might this course take me?

National 4 Mathematics is desirable for many jobs and necessary for apprenticeships. It is the entry requirement for National 5 Mathematics which in turn is necessary if you are interested in marine or science courses, teaching, armed forces, computing, accounting, engineering, the police, nursing and many others.