

# NATIONALS IN A NUTSHELL

The National Parent Forum of Scotland Summary of Mathematics National 4

MATHEMATICS

NATIONAL

4

3

UNITS

**EXPRESSIONS AND FORMULAE  
RELATIONSHIPS  
NUMERACY**

+

ADDED  
VALUE  
UNIT

**ADDED VALUE UNIT: MATHEMATICS TEST**

## What skills will my child develop?

- understanding and applying straightforward mathematical skills in algebra, geometry, trigonometry, and statistics
- using mathematical techniques and reasoning skills to solve mathematical problems
- a positive attitude to mathematics based on an understanding of its use in real-life situations
- skills in using mathematical language and exploring mathematical ideas
- resilience and confidence in problem-solving
- analytical skills
- understanding the importance of accuracy
- interpreting, communicating and managing information in mathematical form
- logical reasoning skills
- communicating solutions, using presentation skills
- decision-making
- creativity and deduction
- leadership and teamwork skills in group activities

## WHAT WILL MY CHILD EXPERIENCE DURING THE COURSE?

- Active and independent learning will develop confidence and self-motivation as learners experience a range of tasks activities
- A blend of classroom approaches including whole class, small group or one to one discussions; direct interactive teaching
- Space for personalisation and choice for developing areas of interest
- Collaborative learning using technology (blogs, software) to engage with others; partnerships with learners in the sciences, technologies, social subjects
- Applying learning to real-life situations and to course work in other subjects
- Embedding literacy skills by learning to use mathematical language and abstract terms.

## ASSESSMENT

- To gain National 4, learners must pass all Units including the Added Value Unit (test)
- Units are assessed as pass or fail by the school/centre (following SQA external quality assurance to meet national standards)
- Assessment (or 'evidence of learning') may be gathered through class work, tests, oral evidence, computer-generated class work, photographs. Learners may use these to build a portfolio to show their progress through the Units
- The Added Value Unit (the Test) is in two parts (non calculator and calculator).

National 4 progresses onto National 5

## ACTIVE LEARNING AND REAL LIFE CONTEXTS IN THE CLASSROOM

### Maths in Business

The class divides into two groups. One makes contact with a local company which uses data to develop its business. A representative comes in and talks about the importance and uses of reliable data. The other invites a local kitchen designer to talk about how maths is used in design and installation.

For more detailed course information:

SQA: Mathematics National 4: [www.sqa.org.uk/sqa/47417.html](http://www.sqa.org.uk/sqa/47417.html)

Education Scotland: [www.educationscotland.gov.uk/nationalqualifications/index.asp](http://www.educationscotland.gov.uk/nationalqualifications/index.asp)

Curriculum for Excellence Key Terms and Features Factfile:

[www.educationscotland.gov.uk/Images/CfEFactfileOverview\\_tcm4-665983.pdf](http://www.educationscotland.gov.uk/Images/CfEFactfileOverview_tcm4-665983.pdf)