

MATHEMATICS

“Mathematics is, in its way, the poetry of logical ideas.” Albert Einstein

COURSE CONTENT

The second year mathematics course is based on CfE experiences and outcomes which are structured within three main organisers, each of which contains a number of subdivisions:

Number, money and measure

- Estimation and rounding
- Number and number processes
- Multiples, factors and primes
- Powers and roots
- Fractions, decimals and percentages
- Money
- Time
- Measurement
- Mathematics – its impact on the world, past, present and future
- Patterns and relationships
- Expressions and equations.

Shape, position and movement

- Properties of 2D shapes and 3D objects
- Angle, symmetry and transformation.

Information handling

- Data analysis
- Ideas of chance and uncertainty.

A strong emphasis will be placed on numeracy, algebra and problem solving.

LEARNING AND TEACHING APPROACHES

Working as an individual or co-operatively in a small or large group, students use a range of strategies and activities to help develop their confidence in arithmetical and mathematical processes.

Teachers will use a skilful mix of approaches, including;

- opportunities for discussion, communication and explanation of thinking
- developing mental agility
- using technology in appropriate and effective ways
- using relevant contexts and experiences, familiar to young people
- planned active learning which provides opportunities to observe, explore, investigate, experiment, play, discuss and reflect
- building on the principles of Assessment is for Learning, ensuring that young people understand the relevance of what they are learning
- developing problem-solving capabilities and critical thinking skills

ASSESSMENT

Assessment in mathematics will focus on children and young people's ability to work increasingly skilfully with number, data and mathematical concepts and processes and use them in a range of contexts. Assessment is continuous throughout S2, followed by an

overall end of year assessment. Students will receive a 'next steps' sheet following every assessment so that they know what to improve on and more importantly, how to improve.

HOMEWORK

Homework will be both regular and appropriate. Along with complementing the work done in class, homework may be research based and interactive via various websites.

PROGRESSION IN SENIOR SCHOOL

Various options, including the new National 4 and National 5 courses will be available.