

## Mathematics Education Policy

### 1. Introduction

This policy describes our approach to the teaching and learning of Mathematics at Derrymount School. The policy provides a framework for staff to ensure the delivery of high quality teaching and maximum opportunity for our young people to develop an understanding of the importance of and positive attitude to maths. It provides an opportunity to inspire pupils to reason mathematically and enjoy the beauty and power of maths problem solving. It also supports our aim of “Finding pathways to learning and living” in an ever expanding multicultural world, underpinned by a belief that Determination and Motivation are the keys to Success.

The policy is not designed to be prescriptive but to reflect our ethos and long term aims. It lays down minimum expectations for teaching and learning, guidelines for teachers in delivering the curriculum and how the outcomes will be measured and evaluated as part of the whole school curriculum.

This policy will be revised in line with the whole school policy review programme after no longer than three years.

### 2. Aims

The Mathematics Curriculum contributes to whole school teaching and learning aims and objectives specifically through developing each pupil to;

- learn in an atmosphere in which they can feel happy and secure and are enabled to enjoy and achieve.
- value cultural diversity and difference
- experience learning that is clear, continuous and shows logical progression
- develop self-confidence and personal interaction skills
- make good or better progress from their individual starting points
- maintain good mental health through problem solving

### 3. Objectives

Our objectives include enabling our young people to:

1. Develop the skills and confidence to become fluent in the fundamentals of mathematics
2. Communicate to the best of their ability and enjoy interaction with others.
3. Recall and apply knowledge rapidly and accurately
4. Develop enthusiasm and enjoyment for the beauty and intricacies of calculation
5. Understand how calculators and other tools can be used to help solve more complex problems
6. Develop skills in planning, evaluating and reviewing breaking down complex problems into simple steps
7. Develop interest and knowledge in transferring problem solving skills across other areas of the curriculum especially science
8. Develop attitudes which help personal and social development and positive attitudes to the ideas of other people, care of the environment and sustainable lifestyles.
9. Learn interaction skills in problem solving which will support emotional well-being in adult life.

10. Develop skills in recording and displaying data explaining conclusions and identifying trends
11. Learn at their own level and experience a positive sense of achievement.

#### 4. Provision at different Key Stages

In Key Stage 1 and 2 our young people are introduced to developing confidence in mental fluency using numbers. They are encouraged to recognise and identify shapes, measure and tell the time. Their use of mathematical vocabulary and an emphasis on practice will aid their progress which will be assessed at the end of the key stage with SATs

In Key Stage 3 (years 7-9) our provision focusses on the further development of mathematical reasoning and learning strategies for justifying arguments. A greater emphasis is placed on solving increasingly sophisticated problems by breaking complex problems into simpler steps. Our young people can begin to work towards gaining a recognised accreditation at GCSE or other relevant qualification in the next key stage.

In Key Stages 4 and 5 our young people continue to receive a core curriculum in Mathematics and they can study to GCSE Level or above if they have achieved at least a B at GCSE. Teachers will recommend the appropriate pathway for learning for each student and classes are designed to enable students of comparable abilities to be taught in the same group. Other pathways may be offered by a teacher if they feel it is more appropriate for the young person.

#### 5. Teaching

To enable all of our young people to make at least good progress teachers must:

1. Prepare schemes of work and lessons that take account of individual pupil's previous experience and achievements
2. Use a range of strategies and resources to engage and sustain learning
3. Plan lessons that sustain learning and engagement throughout the session
4. Evaluate learning and plan for progression lesson to lesson and over longer periods i.e. half termly
5. Provide opportunities for parents to engage and support their child's learning
6. Set, share and evaluate targets with students giving clear direction on how to improve their performance
7. Use a range of teaching methods and take into account different learning styles
8. Mark work clearly and in ways which enable the young person to see clearly how well they have achieved and which identifies any support that they may have had.
9. Support both independent and group work
10. Provide homework that supports and reinforces learning
11. Provide clear and accurate assessment data on a termly basis and make appropriate adjustments to teaching programme to ensure all students make at least good progress.
12. Provide an end of year report to parents identifying strengths and areas for development, attainment level and where appropriate predicted examination grade.
13. Ensure that allocated school funds are used effectively to support the delivery of the Mathematics Curriculum
14. Ensure resources are well maintained and fit for purpose.
15. Take responsibility for their own professional development and keep abreast of national developments and requirements

## 6. Learning

Our young people are expected to:

1. Work to the best of their ability
2. Engage in activities and allow others to participate fully in lessons
3. Complete activities that the teacher provides, with support where required
4. Work independently and in groups
5. Respect others and enable them to learn without interference or distraction
6. Respect resources, take care over presentation and take pride in their work
7. Engage throughout the lesson
8. Provide feedback on their enjoyment and achievement in lessons.
9. Complete homework tasks set to the best of their ability

## 7. Monitoring of provision

The Head Teacher is responsible for monitoring the provision of teaching and learning at Derrymount School and will use the following methods to evaluate the quality of the provision we provide:

1. Lesson observations
2. Learning Walks
3. Pupil Engagement and behaviour management (Enjoyment and achievement)
4. Work scrutiny and work analysis
5. Target setting and pupil achievements
6. Quality of teacher's planning and evaluations
7. Assessment data – Accuracy and progression
8. Examination results

**This policy is to be reviewed no later than 30<sup>th</sup> Sept 2017**