



Mathematics Policy



Introduction

Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. (National Curriculum in England, 2014)

Mission Statement:

At St Malachy's Catholic Primary School we welcome all students and we ensure that everyone has an equal opportunity to engage fully with the Maths Curriculum. The school's mission is to provide a quality education based on Gospel values which promote the dignity and freedom of every person within our community, ensuring equal opportunities for all.

The school is committed to achieving high standards so that pupils can attain their full potential. We endeavour to build resilience and embrace challenge through an inclusive environment that is both flexible and responsive.

Aims:

Our aims for Maths are in line with the New National Curriculum (2014) and ensure that all pupils:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.
- have access to a wide range of high quality resources
- apply their skills across all subject areas.

Roles and Responsibilities:

At St Malachy's the Mathematics Co-ordinator is Miss S Layfield.

The Maths Co-ordinator works in collaboration with the Head teacher, Assistant Head teacher and Governing Body, and takes responsibility for the operation of the Mathematics policy and co-ordination of Numeracy provision, working closely with staff, parents and other schools. The co-ordinator provides professional guidance to colleagues to secure high quality teaching for pupils.

Other roles include:

- Ensuring a core of material is available
- Reviewing and monitoring planning
- Monitoring maths teaching and evaluate pupils work
- Arranging liaison with outside consultants
- Working alongside staff to support if required
- Attending relevant courses to be aware of new ideas and disseminate these to all staff and to arrange appropriate inset for colleagues
- Being responsible for ordering all maths resources
- Carrying out a curriculum review and relay findings to the Governors and staff
- Updating the policy document and schemes of work as necessary

Teaching and Learning

All pupils are entitled to a broad mathematics curriculum in which their learning needs are identified and met. Pupils should experience a range of practical and written activities on number, measurement, geometry and statistics. We operate the planning procedure agreed by the whole teaching staff based upon the National Curriculum Programmes of Study 2014 and the EYFS. Planning is supported by the Collins Busy Ant Scheme.

Classrooms should be rich in discussion between pupils and between teacher and pupils. Some facts will need to be memorised, others will need to be practised but underpinning all of this will be the development of mathematical reasoning and understanding through exploration, problem solving and investigation.

Our planning is informed by the National Curriculum and Busy Ant Maths, which map out the mathematics curriculum for each year group. We then develop weekly and daily plans which give specific detail of learning objectives and appropriate differentiated activities. Mathematics is taught for 1 hour per day in KS1 and KS2. In the Foundation Stage classes mathematics teaching is spread throughout the day aiming for the same structure as KS1 by the end of the Foundation year.

The pupils in each year group in KS1 and KS2 are taught in mixed ability classes and are provided with differentiated activities to ensure tasks are set according to their individual

levels. Each lesson should follow a similar structure; however, this can depend on the learning taking place. The structure is as follows:

- An 'Art of the Start', which is an activity aimed to engage and consolidate learning as soon as the children enter the classroom.
- A short mental/oral starter.
- The main teaching, led by the children where appropriate.
- Opportunities to apply new learning through differentiated activities.
- Plenary

In KS2, once a week 'Big Maths' is held for 1 hour and replaces the Numeracy lesson. Children work in ability classes and work to develop their basic skills. This follows a red, yellow, green system and children move through the stages according to their weekly results.

Pupils in the Foundation Stage use a variety of media but most of the work is practical. All pupils in KS1 and KS2 use a pencil for mathematical calculations and squared exercise books, to aid setting out of calculations. Pupils are taught suitable setting out of work. On starting new work, pupils rule off the last piece of work and date the next piece. The date is recorded in figures e.g. 23.11.03. In KS2, the date is also recorded in Roman Numerals.

Cross Curricular Links are an integral part of our daily lives and mathematics, therefore, manifests itself in many areas of the curriculum. Links with ICT are continually developed through the use of laptops and appropriate software.

Assessment, Recording and Reporting

To develop learning, pupils will be continuously assessed using a variety of strategies - observation, questioning, marking in accordance with our school marking policy. In the EYFS, pupils will be assessed and the Foundation profile completed throughout the year.

In KS1 and KS2, children are tested using a range of set tasks designated as appropriate to test individual pupils, groups or a whole class on an individual or range of attainments. Information will be recorded onto the school's tracking system and also on the child's 'I can' statements. It will then be used to inform future planning, and to identify children for intervention and support.

The Class Teacher, Mathematics Co-ordinator, SENDCo, Assistant Headteacher, Governing Body and Head Teacher keep records of attainment and progress. Each pupil will have targets/I can statements in the back of their Numeracy book. These will link to the learning objectives for that year group. Statutory Assessment Tasks (SATs) will be administered in accordance with the law at the end of KS1 and KS2.

Parents' consultations are held each term where the teacher discusses children's targets and progress in Mathematics. In accordance with statutory requirements, an Annual Report is sent to parents towards the end of the Summer Term. This report covers progress and achievements in mathematics, setting targets for future improvement and includes the level achieved in the SATs if appropriate.

Resources:

Pupils should engage in activities from a variety of sources – practical apparatus, worksheets, textbooks and the environment. Through regular and frequent access to computers, they will experience the fascination of mathematical exploration and investigation. They should also have the power to solve real and challenging problems.

All classes have access to a wide variety of equipment including multilink, Numicon, number lines, counting items, as well as measuring and weighing equipment. All resources can be found in the Maths storage area. In lessons, children are encouraged to access equipment independently where required.

All classes have access to the Collins Busy Ant Maths Scheme and the Assertive Mentoring system. In KS1 and KS2, children can access online support from Mathletics and Times Table Rock Stars.

Interventions

Interventions are provided to boost children's progression in Numeracy. Interventions are carried out mostly by our Teaching Assistants, however it is the responsibility of the teacher to decide how it is planned and delivered. Communication is paramount to ensure the intervention is being carried out correctly and effectively. There are also opportunities for Gifted and Talented children in Year 6 to attend Trinity Academy to access Level 6 teaching where appropriate.

Data analysis will be taken from Target Tracker and used to identify children who require additional support in specific areas.

Whole School Issues

This policy will be considered annually when updating our School Improvement Plan and Maths Action plan.

Inset will be planned to support Whole School responses and where possible individual professional needs.

This policy should be considered alongside our policies on:

- Marking
- Calculations
- Special Educational Needs
- ICT

Evaluation

The mathematics policy will be reflected in our practice. This will be monitored and evaluated by the Head Teacher, the Senior Leadership Team and the Maths Co-ordinator in the form of lesson observations, discussion and regular scrutiny of planning and of pupil's work.

Reviewed by the Governing Body on.....

Signature of Chair of Governors.....

Signature of Head Teacher.....

To be reviewed in September 2018