

St. Michael's National School

Whole School Plan for Primary Maths Curriculum

Introductory Statement and Rationale

Introductory Statement

St. Michael's National School is a co-educational, multi-grade primary school. It has 4 mainstream class teachers, one full-time SET and one part-time SET.

This plan was developed over a number of years beginning in the school year 2001-2002 by all the teaching staff. This document is an amalgamation of discussions, which took place at staff meetings and at dedicated planning days. We availed of the services of two Maths Cuiditheoirí- Rosemary Dunne in 2003/2004 and Fiona Walsh. Staff attended closure days to upskill on the PMC in November 2023 and November 2024. This plan was reviewed in February 2009, March 2013, Oct 2014 and May 2026. Subsequent changes are contained within.

This Mathematics Policy was drawn up in collaboration with teaching staff and prepared for ratification in accordance with the guidelines of the New Primary Maths Curriculum (PMC) 2023 and with the New Primary Curriculum Framework to the Board of Management in the 2026/2027 school year.

Rationale

As a result of changes to the New Primary Maths Curriculum 2023, it was decided to review and update our existing Maths plan to conform with the principles as outlined in the Redeveloped Primary Curriculum. Our primary motivation was to benefit teaching and learning in our school.

This plan is a record of whole school decisions regarding teaching and learning in relation to Mathematics which is in line with the New Primary Maths Curriculum 2023. We concur that 'how children learn maths is as important as what they learn' (PMC 2023, p.6), This policy is intended to:

- Enhance teaching and learning in our school.
- Outline the philosophy of the school regarding Mathematics.
- To implement the 5 pedagogical practices outlined in the PMC.
- Put in place a structured approach regarding content, methodologies and language for the teaching of mathematics in our school, in line with the Primary Mathematics Curriculum 2023.
- Ensure continuity of teaching methodologies throughout the school.
- Act as a resource for teachers and parents in planning yearly work in mathematics - details on planning, resources and assessment.
- Inform new or temporary teachers of the approaches used in our school.

Vision and Aims

Vision

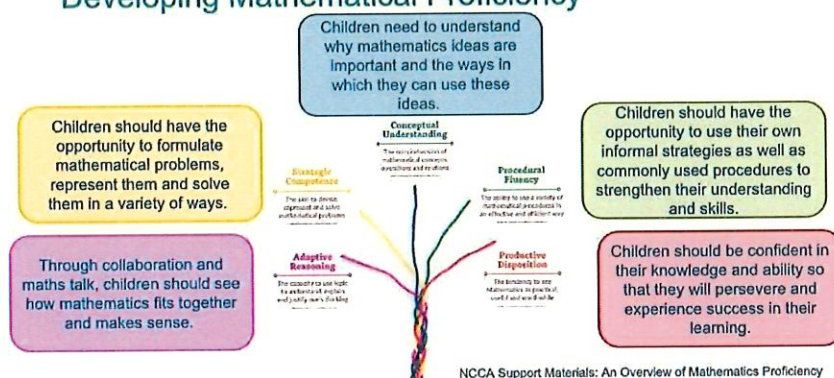
- To enable children to achieve their full potential in Mathematics according to their ability.
- To foster an inclusive learning environment by using differentiation approach and expectation.
- To contextualise the learning of mathematics as meaningful, through extensive use of concrete materials and the children's local environment.
- To foster in them a love for Mathematics by conveying maths as fun and enjoyable.
- To improve maths confidence and proficiency, especially in the area of problem-solving.
- To make the various strands of the Mathematics curriculum applicable to each child's stage of development in as far as is practical within the classroom setting and through various support

structures including parallel teaching, co-teaching, team-teaching, small group and individual withdrawal where necessary.

Aims

This vision aims to provide a strong foundation for every child to thrive and flourish. It supports children in realising their full potential as individuals and as members of communities and society during childhood and into the future. As well as that our aims in mathematics (in accordance with the aims for mathematics in the PMC (2023, p12) are as follows: The over-arching aim of the Primary Mathematics Curriculum is the development of mathematical proficiency. Mathematical proficiency encompasses conceptual understanding, procedural fluency, adaptive reasoning, strategic competence, and productive disposition. Importantly, all five aspects are interwoven and interdependent.

Primary Mathematics Curriculum Developing Mathematical Proficiency



Curricular Planning

Class Groups	Junior/Senior Infants	1 st and 2 nd Class	3 rd and 4 th Class	5 th and 6 th Class
Elements	Understanding and Connecting, Communicating, Reasoning, Applying and Problem Solving.			
Strands	Strand Units			
Number	Uses of Number Numeration and Counting Place value and base ten Sets and operations Fractions	Numeration and Counting Place value and base ten Sets and operations Fractions	Place value and base ten Sets and operations Fractions	Place value and base ten Sets and operations Fractions
Algebra	Patterns, rules and relationships Expressions and Equations	Patterns, rules and relationships	Patterns, rules and relationships	Patterns, rules and relationships
Shape and Space	Spatial awareness and location Shape Transformation	Spatial awareness and location Shape Transformation	Spatial awareness and location Shape Transformation	Spatial awareness and location Shape Transformation

MATHS PLAN 2026

Measures	Measuring Time Money	Measuring Time Money	Measuring Time Money	Measuring Time Money
Chance	Data Chance	Data Chance	Data Chance	Data Chance

- Each class teacher familiarises themselves with the curriculum objectives for their own class level from the Teacher Guidelines.
- Each SEN teacher familiarises themselves with the curriculum objectives for the class level they are teaching

Timetable

Teachers will refer to the recommended times allocated in the curriculum. When drafting timetable for withdrawal of pupils for supplementary teaching, learning support teachers include these pupils for as much of the mainstream mathematics programme as possible. (See Learning Support Policy)

Pedagogical Practices in St. Michael's National School

General overview

- There is less emphasis and reliance on textbooks and workbooks and more on active and playful learning experiences as we have invested time and money in building up resources and developing maths in the environment.
- Textbooks in use are in line with content objectives for the class level.
- Concrete materials are available and in use in all classrooms.
- Number limits are being adhered to particularly at first and second classes where the emphasis is on the development of the concept of place value.
- Formulae are being "discovered" by children rather than being taught by rote.
- There is an emphasis on simple fraction families in the senior classes.
- Pupils collect real data in other areas of the curriculum and use it to represent their findings i.e. data from other subjects such as geography, history or science to find the answer to a question.
- Estimation skills are being developed and refined with the emphasis on using estimation in all areas of mathematics.
- Estimation strategies are being used such as clustering, rounding and through talk and discussion.
- As identified in SIP numeracy all children are introduced to ROSE strategy.

Talk and discussion

- Guided discussion and discussion skills: Talk and discussion forms a large part of the lesson - this occurs in whole class work, pupils working in small groups and in pairs as well as teacher/pupil and pupil/teacher.
- Opportunities are provided for pupils to explain how they got the answer to a problem, discuss alternative ways of approaching a problem or give oral descriptions of group solutions.

Scaffolding

- The teacher actively models the language to be used, particularly when talking through the problem-solving process.
- Individual Maths Journals will be introduced from September 2026 for all students to provide a reflective space where children can make their mathematical thinking visible and document their problem-solving approaches. These copies will be carried with the children every year throughout their time in St. Michael's to capture each child's unique mathematical journey.

Integration

- Other subjects where mathematical processes are appropriate and useful, e.g. gathering data in history and geography, measuring temperatures in science are incorporated into the curriculum.

Linkage

- A thematic approach is used for linkage, e.g. when dealing with decimals are we also aware of their use in measures and money.

Mathematical language

- There is an agreed emphasis on the language of mathematics for each class level.
- There is a conscious effort made to use the children's own ideas and environment as a basis for reinforcing mathematical language, e.g. you are taller than he is, teacher's table is longer (wider) than yours. Teachers have identified common approaches to the language used in
- Addition – Infants to Second Class (add, plus, count on and more than) Third to Sixth Class (add, plus, total and sum of) .
- Subtraction - Infants to Second Class (minus, take away, less than, count back, subtraction and difference) , Third to Sixth Class (minus, take away, less than, subtraction, difference).
- Multiplication - 2nd Class "groups of". Third to Sixth Class (3 fours are) product of, groups of, multiples.
- Division - divide, share, split, groups of.. . Equals - same as, is, will be, answer is, means, equivalent, total.
- October/November 2014 staff agreed that on a whole school approach for addition, subtraction, division and multiplication. Although the whole-school plan has identified particular terms to be used at different class levels, children, during their school career, are exposed to the different terms used in relation to the symbols, particularly when engaging in problem-solving activities.

Number Facts

- There is a common approach to the teaching of number facts (tables), e.g. for 3 X 4, we say three fours. Children are encouraged to become aware of the commutative properties of multiplication tables and of their relationship with division. We teach and test addition & subtraction tables in 1st & 2nd, multiplication and inverse for division in 3rd & 4th, and multiplication tables in 5th & 6th.

Active learning and guided discovery

There are agreed strategies for teaching:

- Addition - top to bottom i.e. vertically, and left to right i.e. horizontally.
- Subtraction - use of materials and renaming

- Multiplication - vertical/horizontal presentation, skip counting, using mental strategies such as identifying doubles, near doubles, understanding multiplication as repeated addition, multiplying by 5 and 10, using games to reinforce facts, developing estimation skills.
- Division - concept of sharing, understanding division as repeated subtraction. We add and subtract fractions vertically and horizontally.
- The children are encouraged to develop personal benchmarks, particularly in the measures strand, e.g. noting their height in relation to a metre, the width of their finger as close to a centimetre. 4 carpet tiles covering square. Mathematical games are in use at each level. They include dice, cards and dominoes. These games are developed appropriately at middle and senior levels. Following advice from a WSE MLL in February 2026, it was decided that all classes would engage in fun maths activities using maths equipment on a regular basis. Children will record their discoveries in their maths journals.

Collaborative and co-operative learning

- Skills are taught to ensure that children work as a group by developing listening to others, problem solving, turn taking and these skills are developed across the curriculum. Each class use a variety of organisational styles, e.g. pair work, group work and whole class work. During Maths Week, all children are provided with opportunities for collaborative and co-operative learning when engaging in problem-solving activities/games as a whole.

Problem-solving

Following analysis of standardised tests during 2025, we observed that many children were encountering difficulty in the area of problem solving. We, as a staff are endeavouring to address this by an increased emphasis on problem solving activities and encouraging the use of mathematical language. We recognize that the ability to solve problems is at the heart of mathematical activities. All classrooms display the ROSE problem solving strategy. According to the strategy children will be encouraged to: Read the problem, Organise the information of the problem, Solve the problem, Evaluate the solution to the problem. Children are encouraged to use their own ideas as a context for problem solving. Children are also encouraged to use approaches such as drawing pictures, using concrete materials, discussing problems and substituting smaller numbers. The following are types of problems we will present to the children: word problems, practical tasks, open-ended investigations, puzzles, games and mathematical trails.

Presentation of work

- There is an agreed approach to numeral formation in the junior classes - the Ten-Town method is utilised occasionally.
- Presentation of written work - use of pencil, neatness is encouraged, page numbers and ruled pages - cm square is in use up to middle of 2nd Class. A smaller squared copy is used from end of 2nd to 4th Class. A large A4 copy with small squares is used in 5th and 6th. We provide a variety of options for recording work and make use of maths journaling regularly.

All children should be provided with learning experiences that are appropriate and meaningful in their class as well as the opportunity to access the full range i.e. all strands, of the mathematics curriculum. In our school we ensure this happens as follows:

Fostering Productive Disposition

Productive disposition is the tendency to see maths as practical, useful and worthwhile. It can be nurtured over time. Attitudes and values both at home and in school have a strong impact on the development of the child's productive disposition for maths. It is more likely children will engage in maths in a meaningful way when they see maths as relevant to their own lives.

Fostering Productive Disposition through Counting

- Sit and Stand Counting with varying volume
- Choral Counting: forwards, backwards in fractions etc.
- Counting Can
- Counting stick

Fostering Productive Disposition through use of the Learning Environment

Using the Learning Environment as an Enabler

Classroom

-Maths Displays

School Building

-Maths displayed in corridors and hall

School Grounds

-Playground displays e.g. snakes and ladders, space to use chalk.

Access to Resources

-Maths resources are readily available in all classrooms and shared maths area, inclusive of and easily accessible in maths lessons to support learning.

Using our Maths Eyes

- Identifying
- Questioning
- Describing using mathematical language

Maths Week

- Activities each day in the classrooms
- Shared activities and games with other classes
- Display of Maths Week activities
- Discussion/explanation of Maths Week activities at assembly

At Home and in the Community

Fostering a productive disposition toward maths is a shared responsibility between the home and school. Parents/guardians will be encouraged to promote and identify maths in the home and wider community. TOT – oral homework to share class work with parents.

Encouraging Playfulness with Mathematics

Playful learning is appropriate for children across all ages and stages of primary and special education. Play provides a context for mathematical thinking and the development of maths language and concepts. Playfulness can be encouraged by providing opportunities for exploration, investigation,

challenge, creativity, choice and independence. Through play children can be supported in making choices about their learning. In doing so their mathematical concepts are strengthened and extended. Opportunities for children to make connections and share ideas are increased. Making maths tasks playful enables choice of how to engage with it, choice of how to represent thinking, multiple solutions, opportunities to explore, investigate and be creative. After Oide PMC School Closure Day 2 In November 2024, staff decided to explore some of the micro lessons with their classes. Feedback at a later staff meeting was very positive and these lessons will be used regularly.

Using Imaginings (available in Micro Maths section of Oide Website)

Encouraging vocabulary including:

- I imagine _____
- I think _____
- I wonder _____
- I agree/disagree _____
- My first thought was _____

Using Open Ended Tasks (available in Micro Maths section of Oide Website)

An open-ended task is one where there is a range of 'correct' solutions and or a range of ways to achieve one or more solutions. (NCCA)

Using Real world Tasks (Link with STEM and STEAM)

Developing tasks that can be expanded upon in the home.

Using Story

Identifying maths in stories and creating a mathematical activity based on the story (mathsthroughstories.org)

Emphasising Mathematical Modelling

Mathematical Modelling is a process for children to represent their thinking individually and collaboratively. Children might use words, objects, pictures, symbols, or diagrams to demonstrate their interpretation of different mathematical problems. While accuracy is valued mathematical modelling places greater emphasis on exploration, sense making, conceptual understanding and flexibility in thinking. By engaging in mathematical modelling children create their own models which make sense to them. Use the Lets Talk framework for teacher questioning to elicit thinking, Tasks (available in Micro Maths section of Oide Website) such as which would you prefer also integrate maths talk.

Models include:

- Ratio Model
- Fingers
- Arrays
- Empty Number Line

Using Cognitively Challenging Tasks

Cognitively Challenging Tasks are rich, higher order learning experiences that should appropriately stretch and challenge children's conceptual understanding. These tasks should provide all children with opportunities to access maths while offering the potential for deeper engagement. Cognitively Challenging Tasks provide all children with the opportunity to freely explore different ways of solving problems which use prescribed rules or methods and can be differentiated for all learners.

- Headline Stories
- Parallel Tasks
- Adapting Tasks

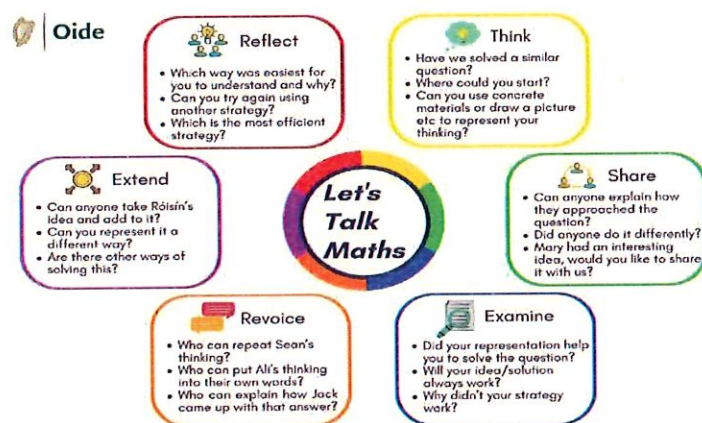
(Prompts available in Micro Maths section of Oide Website)

These five pedagogical practices are dynamic and naturally link with each other to enhance children's learning in Maths.

Promoting Maths Talk

Maths Talk is a collaborative process where children's thinking strategies and ideas are discussed, shared and exchanged. By engaging in Maths Talk children can reflect on their own understanding of maths concepts. They can define, present and justify ideas while developing their ability to express and articulate their thinking. Children can make sense of and critique their own ideas and those of others. Taking into consideration the children with English as an additional language, children with special educational and those experiencing difficulties in the area of mathematics particular emphasis will be given to the language of mathematics. Language plays a vital role in the acquisition of mathematical concepts therefore, a strong emphasis will be placed on Talk and Discussion (teacher/pupil, pupil/teacher and pupil/pupil.)

Lets Talk Maths Framework (prompts available in Micro Maths section of Oide Website)



Differentiation

Maths work will be differentiated by the class teacher and learning support teacher in a variety of ways e.g. groupings based on ability, differentiated teacher-designed worksheets, differentiated oral maths questions, simplification of maths language for children with literacy difficulties, etc. A balanced mathematics programme will cover concepts, skills and problem solving and should consider the child's strengths and weaknesses. The introduction and development of each topic will be structured

in a graded and sequential way to allow for the individual child to develop and participate at their own level and pace. This Mathematics plan aims to meet the needs of all the children in the school.

- Teachers in mainstream classes provide a differentiated programme to cater for children with learning difficulties. This may involve varying pace, teaching style, content and methodologies to ensure learning for all children.
- An emphasis is placed on allowing all children to use a variety of materials to learn and to consolidate concepts, computation and problem-solving strategies.
- Counting using counting stick

Teaching Tables

Number facts up to 10 will be memorised. Addition and subtraction by the end of 2nd Class, multiplication and division by the end of 4th. Both will be revised up to and including 6th Class. A variety of methods will be used counting in 2's, 3's, 4's, 5s, 10s games, Time Tables games etc. The teaching of tables shall proceed in the following order: - Addition tables - Subtraction tables - Multiplication tables - Division tables

Problem Solving

The school uses ROSE/CUBES when approaching all problems solving activities. Daily problem solving including a focus on mathematical language is encouraged.

ROSE:

1. Read
2. Organise
3. Solve
4. Evaluate

CUBES:

1. Circle numbers
2. Underline questions
3. Box keywords
4. Evaluate steps
5. Solve

Calculators

From 5th class upwards children are permitted to use calculators alongside the traditional paper and pencil methods. In St. Michael's National School, calculators are particularly useful for handling larger numbers, to check answers, to explore the number system. Calculators also allow the child to focus on the structure of problem-solving equations. It is important that the skill of estimation is developed alongside with the use of the calculator. Children also buy their own calculators as indicated on the school booklist.

Assessment

Assessment and record keeping

Assessment will be a continuous and dynamic part of the teaching and learning process and shall be a positive experience for the children. The results of assessment will feed back into the teaching and learning process.

The aims of assessment are:

- To enhance the child's learning by providing accurate feedback for both the child and the teacher
- To indicate the child's readiness to proceed to a new topic
- To assist the teacher in the planning and in pacing of mathematics lessons and activities.
- To encourage the teacher to examine the suitability of the curriculum content for his/her particular class and also the methodologies and approaches being used
- To identify children who may have difficulties in specific areas of mathematics
- To identify the kinds of difficulty experienced by children in developing mathematical concepts and skills
- To identify children with special educational needs
- To help inform parents of progress
- Results on both a class and school basis are looked at to see if there are areas of mathematics that can be improved.

Records are stored in line with the school's policy on record keeping. A broad range of assessment tools is being used which include:

- Teacher observation
- Maths Journals – children's personal reflections
- Teacher-designed tests and tasks
- Work samples.
- SALF folders
- Diagnostic tests (mainly resource/learning-support).
- Standardised tests.
- Afl Assessment is being used to direct teaching and learning as the teachers examine test results and observations to see if there are areas of mathematics that can be improved and also discuss results with learning support and resource teachers. Assessment is continuous, informative and evaluative and leads to further planning. It is both informal and formal.
- Standardised tests once a year. All classes 1st -6th
- Oral Summary - to parents at parent/teacher meetings.

Children with different needs

Those children who receive scores at or below the 10th percentile on the standardised tests will have priority in attending the Learning Support Teacher for supplementary teaching. The availability of supplementary teaching depends on the extent to which there are spaces in the Learning Support Teacher's case load having applied the recommended selection criteria for receiving Learning Support as laid down by the DES. Parents will be informed of the need for their child to attend the Learning Support and will be involved in formation of a support plan. If there are children who qualify for supplementary teaching but for whom there is no possibility of receiving formal supplementary teaching the Learning Support teachers will liaise with the class teacher on resource books and materials that could be used by the class teacher and the child in the mainstream class setting. If the child is already attending the

Learning support teacher for English it may be possible on occasion for the child to receive some help with their maths work as part of their supplementary teaching sessions. The progress of such children will be reviewed on a regular basis and will be apparent through Student Support Plans. The same provision will apply for children who do not qualify for supplementary teaching but yet demonstrate difficulty with Mathematical activities either on an on-going basis or with particular concepts. (Multi-Class Setting: Advantage will be taken of the potential of the multi-class situation to allow such children to revise and consolidate their understanding of any strand-unit they may have difficulty with). Children with additional needs are provided with access to all strands of the mathematics curriculum. Teachers in mainstream classes provide differentiated programs to cater for children with learning difficulties. ICT is used to support teaching and learning for children with additional needs. For those children who have a natural aptitude for mathematics, every effort will be made to provide them with more challenging work such as reasoning tests, further individual work and use of ICT. Advantage will be taken of the potential of the multi-class situation to allow such children to explore appropriate strand-units at a higher level). Collaboration with parents of such children will take place during parent/ teacher meetings.

Equality of participation and access

All children are afforded equality of participation and access.

Homework Guidelines

- Homework compliments and reinforces work done in school and gives parents an opportunity to be involved in their child's mathematical education.
- Opportunities for problem solving in maths will be provided regularly for homework.
- All efforts should be made to ensure that mathematics homework reflects the active learning approach as described in the curriculum.
- Teachers make recommendations and provide guidance on hands on maths in the home environment e.g. matching socks, sorting cutlery, plans on calendar. From Junior Infants, small, manageable amounts of maths homework is instructed.
- Oral tables are given to learn at home from 1st Class.
- Homework may be differentiated taking into account the range of abilities within the class.
- We ensure that children attending resource/learning-support are not going home with two sets of mathematics homework.
- Correction of homework should inform teachers planning in Mathematics.
- In allocating homework, teachers will take into account the differing levels of ability.
- Homework should be a positive experience. Practical activities will be given from time to time.
- Time will be allocated in the Maths lesson for correction of Maths homework and the review of any problems arising. Parents/children are encouraged to record time taken on homework from First-Sixth Class.

Ratification and Communication

Once this plan has been ratified by the Board of Management, it will be issued to all teaching staff and copies will be made available for inspection by parents/inspectors and other interested parties on our school website at cloonacoolns.ie.

Reviewed by staff members in from April-September 2026

Reviewed and Ratified by the Board of Management on 6/10/2026

Signed: 
Chairperson of the BOM