

Whole School Maths Plan

St. Joseph's National School, Moneygall, Birr, Co. Offaly.

Roll Number - 17003A

Whole School Maths Plan

Introduction

Our primary school is based in Moneygall with approximately 105 pupils. The school has 5 mainstream classrooms. There are approximately 2 SEN/EAL teachers supporting the pupils. Approximately 10% of our pupils have English as an Additional Language (EAL). This Whole School Maths Plan was devised in consultation with the whole staff taking from their experiences of teaching in our school.

Rationale

The curriculum describes Mathematics as the study of relationships, connections and patterns that surround us. It encompasses key values that every child is mathematical, that mathematics is both a human and social phenomenon, that mathematics is a tool that helps us to make sense of the world, that it is beautiful and worthy of praise in its own right and that maths is everywhere and for everyone.

In this document we aim to outline how we propose to implement the Maths Curriculum in Moneygall NS with consideration for our particular setting. This document considers and aims to provide for all children in the school from those in need of extra supports to those achieving outside of the average ability.

Our Ethos

We aim to enable the pupils in our care to achieve their maximum potential in a happy, safe, inclusive, child-centred environment. We strive to nourish and develop each child's sense of their own self-worth as an individual and celebrate their unique gifts and talents. We support each student to grow academically, socially and spiritually in a warm, caring, respectful environment.

Aims

Conceptual Understanding: the comprehension of mathematical concepts, operations and relations.

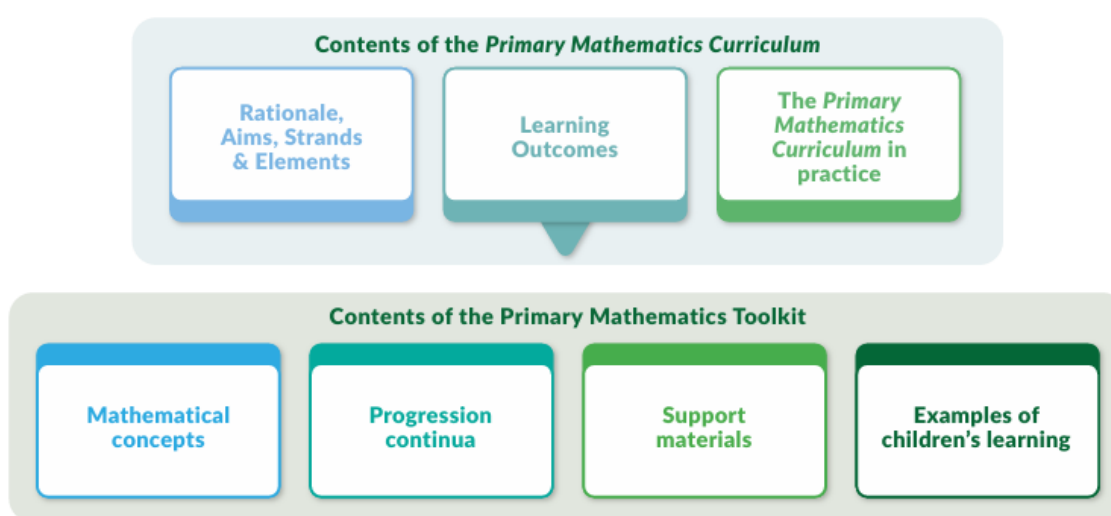
Procedural Fluency: the ability to use a variety of mathematical procedures in an effective and efficient way.

Productive Disposition: the tendency to see Mathematics as practical, useful and worthwhile.

Adaptive Reasoning: the capacity to use logic to understand, explain and justify one's thinking.

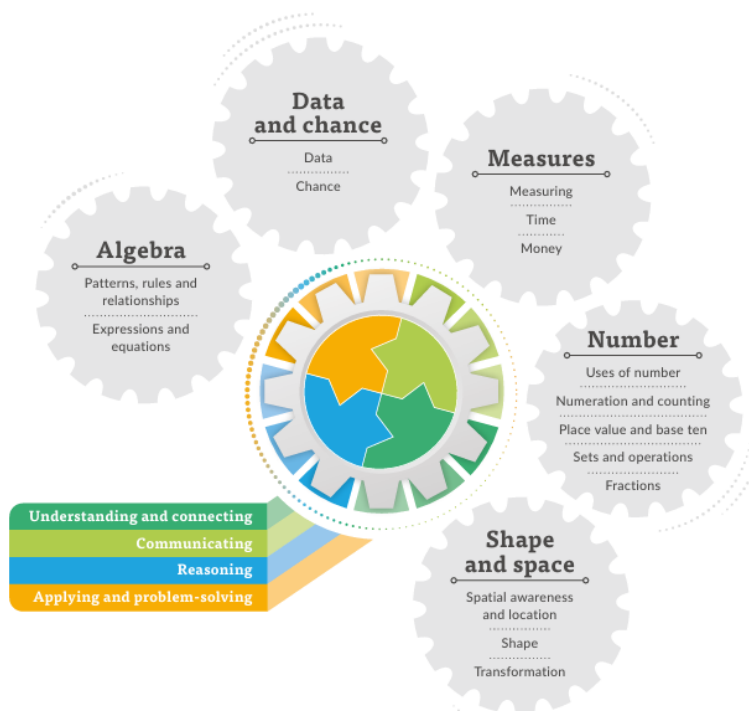
Strategic Competence: the skill to devise, represent and solve mathematical problems.

Understanding the New Primary Maths Curriculum



Strands outline the main categories of mathematical learning across five content areas as outlined in the table below taken from the curriculum. These are further broken down into elements as can be seen below. Learning Outcomes (L.O) are outlined for each element and are broad in their scope. Learning Outcomes need to be evident in teacher planning.

The Primary Maths Toolkit is a support resource for teachers to help them to hone and refine their planning to suit the needs of their class and setting. Mathematical concepts and progression continua give teachers more detail and guidance on how they may approach teaching and moving through a specific topic.



Understanding and connecting

- take time to think
- interact and collaborate with peers
- connect new and previous learning and ideas
- make links and relationships between ideas, procedures and solutions
- connect learning across mathematical strands, and beyond Mathematics
- engage in learning that offers an appropriate level of challenge

✱ be curious and innovative

- learn, use and apply mathematical language
- express their ideas and share their thinking with others
- model and represent their thinking in different ways
- compare how they and others represent their ideas
- argue their logic
- listen to others

✱ be open, confident and sociable

Communicating

Reasoning

- analyse and deduce ideas, strategies and solutions
- argue and justify their thinking
- question and evaluate evidence
- generalise their learning to other areas
- determine and justify how their ideas and conjectures make sense

✱ be logical and analytical

- engage with a range of appropriate problems rooted in meaningful contexts
- pose problems
- investigate and explore ways to solve problems
- compare ideas, strategies and approaches
- make decisions and apply Mathematics to real-world situations
- interpret and evaluate solutions

✱ be creative and adventurous

Applying and problem-solving

Pedagogical Practices and Approaches

The curriculum outlines some key pedagogical practices for use in the classroom in the teaching of Maths as follows:

- Promoting Maths Talk
- Using Cognitively Challenging Tasks
- Fostering Productive Disposition
- Emphasising Mathematical Modelling
- Encouraging Playfulness

These pedagogical practices allow for children to learn and develop at a pace and level of challenge that is individual to their needs and interests whilst developing their confidence and proficiency in Mathematics. As with most good classroom practices, these practices are dynamic and naturally link with each other.

Individual Teachers Planning

Teachers should base their yearly and short-term plans on the approaches set out in this whole school plan for maths and the primary maths curriculum. Each class teacher will familiarise themselves with the objectives for their own class level. Each teacher will bear in mind that in planning, a balance between the strands should be kept throughout the year. Work covered will be outlined in the Cuntas Míosúil. It is recognised that the purpose of planning is to aid and benefit the teacher and that the layout and design of the planning is at a teacher's personal discretion.

Teachers are required to show evidence of the Learning Outcomes chosen in their planning.

Concrete Resources

Each class will be provided with a set of resources based on their class level that are designed to support the teaching of number primarily but may be adapted to be used in other strands of the curriculum. Resources that will be used less regularly will be collated and stored in our central location and a list of these resources will be distributed to all teachers for their reference. Stock takes will be carried out to keep track of, organise and replace missing equipment. Teachers may request to purchase additional resources through school management for their individual classes or for the shared resource area of the school. A list of the available resources is attached to this document.

Books

Classes from Junior Infants to Second Class are working from the Planet Maths Programme and books are purchased annually that the children can write into. Third Class to Sixth Class will adopt a new Maths Programme collectively and books will be purchased as part of the

school book scheme that children will not write into and will remain the property of the school. The current Mental Maths book that is being used is Master Your Maths and the children are writing into these. Teachers at all levels are encouraged to use their discretion in the use of books in relation to the Maths Curriculum. Teachers are under no obligation to complete the entirety of any book and should feel free to leave out or supplement any section of a textbook from other sources based on what they feel is most beneficial to the children in their class.

Technology

Every classroom is provided with an Interactive board which can be used to support the teaching of maths through providing online games, online manipulatives, access to support materials for Planet Maths, mathematical videos and songs etc. A shared class set of ipads and individual computers in the SET Room are also available to teachers for use in the exploration of mathematical topics. A list of useful websites is attached to this document.

Assessment and Record Keeping

Assessment is used by teachers to inform their planning, selection and management of learning activities so that they can make the best possible provision for meeting the varied mathematical needs of the children in our school. Teachers use several tools for assessing pupils' work.

Teachers will keep a record of children's mathematical work in their assessment folders as a way of tracking children's progress. The records kept in every teacher's folder is at their own discretion and may include but is not limited to:

- samples of children's work
- formal tests/assessments
- photographs of work with concrete materials
- teacher observations
- records of teacher conferences with children
- peer and self-assessment

It is our practice that classes carry out termly assessments that are communicated to parents/guardians.

Standardised tests will be carried out at the end of every year and results will be uploaded to Aladdin and made available to the incoming teacher.

Teaching for Student Ability

The maths programme aims to meet the needs of all children in the school. This will be achieved by teachers varying pace, content and methodologies to encourage learning for all children. This curriculum acknowledges the experience of teachers and their skill level in assessing and recognising where their own classes are in terms of ability and mathematical experience and skill. A teacher at any level in our school, will start at the mathematical level of the children they are meeting in their class on a given year. Where classes are year on year in terms of academic achievement may vary for many different reasons and influences so setting out a programme for achievement at every class level is unrealistic in this setting. As a school, we trust our teachers to establish where a class is in terms of their mathematical learning through collaboration with previous teachers and assessment and to work forward from that point. In line with this, programmes for children on Student Support Plans within our school will be chosen and administered by the teachers in these classrooms as they see fit.

The introduction and development of each topic will be structured in a graded, sequential way to allow the individual child to develop and participate at their own level and pace. When a child demonstrates a particular difficulty, either with a topic, strand or overall, the class teacher will provide extra support and assistance to the child. This may be supported informally with in-class support from the SEN team. This kind of support would not require permission from a child's parents as it would be provided as part of a whole class setting and would not require withdrawal. Consultation between the class teacher and SEN team may result in the decision that withdrawal and more focused support is necessary for some children.

The availability of supplementary teaching for Maths, however, depends on the case load of the S.E.T team. Arrangement will be in accordance with the recommended selection criteria as determined by the DES and laid out in the school's SEN policy. The class teacher and SEN teacher may decide from their assessments and interaction with children that other children are in more need of support at a given time and may rotate groups or children receiving varying levels of support. Support will include various models depending on needs of child/class. Should it be decided that withdrawal is required, parents will be notified, and permission will be sought if not already given.

Children with exceptional ability in maths will be given extra work based on the concept being taught in class to enable them to reach their full potential. Parents will be consulted and opportunities for further development will be explored.

Useful Weblinks

<https://www.scoilnet.ie/primary/theme-pages/mathematics/>

<https://polypad.amplify.com/p>

<https://mathsbot.com/>

[Topmarks: teaching resources, interactive resources, worksheets, homework, exam and revision help](#)

<https://www.mathplayground.com/>

<https://toytheater.com/>

<https://www.twinkl.ie/resources/roi-resources/discover-thrive-twinkl-ireland-resources>

Teaching Approaches Used Across the School

- **Encouraging Playfulness** Creating a joyful and curious learning environment, in which children are encouraged to experiment, take risks and learn from mistakes. Utilising imaginative scenarios and creative approaches to introduce and reinforce the mathematical concepts. Integrating games, puzzles, and open-ended exploratory tasks into daily maths lessons
- **Mathematical talk and discussion-** Creating a classroom culture where children feel comfortable discussing their mathematical ideas, strategies and misconceptions. Modelling precise mathematical language, and encouraging children to use it accurately. Providing structured opportunities for pair work, small group discussions and whole-class discourse. Using question stems and prompts to encourage deeper mathematical conversations.
- **Structured Maths Lesson.** We will begin each lesson with 5-10 minutes of mental maths/counting activities. Use of counting sticks, counting choir etc. This will be followed by the explicit teaching part of the lesson (15-20 min) and finally, children will be given activities to practise the skill/extend the learning or problem solve. These may be individual, pair or group activities, and may be assisted by SET. The lesson will end with a plenary on what was learned today and an opportunity to share the challenges or successes involved.
- **Explicit instruction and modelling.** Providing opportunities for children to engage in the full modeling cycle (i.e. understanding the problem, formulating a mathematical model, solving the problem, interpreting the solution and validating/refining the model)
- **Guided practice and gradual release of responsibility.** Creating a positive and supportive classroom atmosphere, where mistakes are seen as learning opportunities. Celebrating effort, perseverance and different approaches to problem-solving. Using engaging and relevant tasks to build children's confidence and interest in maths. Encouraging a 'growth mindset' regarding mathematical ability.
- **Use of real-life contexts** and local rural examples that are meaningful to our children.
- **Integration of maths across the curriculum** (SESE, PE, SPHE, Arts)

In addition to these instructional routines, to further foster playful and engaging learning, teachers are encouraged to incorporate (where appropriate): Manipulative-based activities, play-based learning and free explorations, Investigations and discovery-based learning, Mathematical games (e.g. from their Games Bank) and gamified digital activities, Stories and

picture books that stimulate mathematical discussion, exploration and discovery. Outdoor learning (e.g. Maths Eyes, maths hunts and trails).

Supporting Pupils with EAL and SEN: Mathematical Language and EAL/SEN

Recognising that mathematical understanding is closely linked to language development, Moneygall National School places a strong emphasis on the explicit teaching of **mathematical language**, particularly for pupils with English as an Additional Language (EAL) and SEN. Across all class levels, teachers:

- Explicitly teach and revisit key mathematical vocabulary and symbols
- Use visuals, manipulatives, pictorial representations, and models to support comprehension
- Provide sentence stems and language frames to support mathematical talk and reasoning (e.g. *I know this because...*, *The pattern is...*)
- Encourage structured partner talk and small-group discussion to develop confidence in using mathematical language
- Model correct mathematical language consistently
- Support pupils in making connections between everyday language and mathematical terms

Where appropriate, pupils are encouraged to draw on their **first language** to support conceptual understanding, with a focus on transferring understanding into English mathematical language. Collaboration between class teachers, support teachers, and language support services ensures a consistent and inclusive approach to developing mathematical language for all learners.

Resources

Moneygall NS purchased concrete material sets for every classroom in the school as advised by PDST. The principal co-ordinated the inventory / purchase of new resources

Further resources to follow with DES funding for new curriculum. The area of school textbooks will be examined especially for senior classes for 25/26.

Success Criteria

The success or otherwise of the plan will be gauged from a variety of sources ranging from teacher feedback to learner outcomes being achieved to standardized test results. The plan is being introduced in stages and whole-school focus will be developed accordingly.

Roles and Responsibility

Development and progression of Math curriculum from whole-school level will be led by the ISM team through use of Croke park hours / staff meetings and teacher communications.

The following people have particular responsibilities for the ongoing monitoring of the policy: Class Teacher, pupil, Principal, Parent/Guardian, ISM post-holder, BOM to provide oversight role.

Timeline for Implementation

2023/2024:	The new Primary Math Curriculum was introduced in. Teachers to become familiar with new terms and focus
October 2023	Principal and ISM leader attend seminar in Education centre
December 2023	School Closure day 1 for staff CPD Laois Education centre
Action-	Staff to explore : Maths Talk

2024/ 2025:

December 2024	School Closure day 2 for staff CPD
January 2025	Purchase of new concrete math materials for class sets.
2025./2026	Embedding the Primary Math Curriculum in our school.

Whole School Progression in Mathematics

A coherent whole-school approach ensures continuity and progression in pupils' mathematical learning.

Strand: Number

- Infants: Counting, subitising, number sense, early operations
- 1st–2nd: Place value, addition and subtraction strategies
- 3rd–4th: Multiplication, division, fractions, estimation
- 5th–6th: Fractions, decimals, percentages, proportional reasoning

Strand: Algebra

- Infants: Patterns and relationships
- 1st–2nd: Number patterns and simple rules
- 3rd–4th: Relationships, variables, and sequences
- 5th–6th: Expressions, equations, and generalisation

Strand: Measures

- Infants: Comparing length, weight, capacity, time
- 1st–2nd: Standard units and practical measurement

- 3rd–4th: Perimeter, area, time, and money
- 5th–6th: Volume, scale, problem-solving in real-life contexts

Strand: Data and Chance

- Infants: Sorting, matching, and simple graphs
- 1st–2nd: Data representation and simple probability language
- 3rd–4th: Data analysis and interpretation
- 5th–6th: Chance experiments and data-informed conclusions

Strand: Space and Shape

- Infants: Exploring shapes and spatial language
- 1st–2nd: Properties of 2D and 3D shapes
- 3rd–4th: Angles, symmetry, and coordinates
- 5th–6th: Transformations and spatial reasoning

Roles and Responsibilities

Board of Management

- Support the implementation and review of the Whole School Mathematics Plan
- Ensure adequate resources are available

Maths Coordinator Bernadette Byrne

- leads the development and review of the plan,
- oversees the management and organisation of resources and materials,
- supports colleagues,
- and promotes best practices, with a specific focus on **Promoting Maths Talk** and **Encouraging Playfulness**.

Principal and In-School Leadership

- Lead and support the implementation of the plan
- Facilitate CPD and collaborative planning
- Monitor teaching, learning, and assessment practices

Class Teachers

- Plan and deliver mathematics in line with the Primary Maths Curriculum and this plan
- Use assessment to inform teaching and next steps
- Support inclusive practices and mathematical talk

Support Teachers

- Collaborate through team teaching and in-class support
- Deliver targeted interventions where required
- Monitor and review pupil progress

Parents/Guardians

- Support children's learning through Maths for Fun initiatives
- Engage positively with mathematics at home

Monitoring, Review and Success Indicators

Monitoring

The quality of teaching and learning in mathematics is monitored through:

- Whole-school and class-level planning reviews
- Classroom observation and professional dialogue
- Analysis of assessment data, including standardised tests and teacher-designed assessments
- Review of intervention outcomes (e.g. Power of 2)
- Pupil voice, including discussion around attitudes to mathematics
- Feedback from parents through Maths for Fun and home-school communication

Monitoring is collaborative and developmental, supporting reflective practice and continuous improvement.

Success Indicators

The effectiveness of this plan will be evident when:

- Pupils demonstrate positive attitudes, confidence, and engagement in mathematics
- Pupils use appropriate mathematical language to explain their thinking
- Clear progression in learning is evident across class levels and strands
- Teaching reflects the principles and methodologies of the Primary Maths Curriculum
- Assessment information is used effectively to inform teaching and support early intervention
- Inclusive practices, including team teaching, are embedded across the school
- Targeted interventions result in improved pupil outcomes
- Parents report increased confidence in supporting mathematics learning at home

THE OVERALL RESPONSIBILITY FOR THE IMPLEMENTATION OF THIS POLICY LIES WITH THE PRINCIPAL AND TEACHERS.

Ratification

This policy was agreed by staff in January 2026 and ratified by the Board of Management on 12th of March 2026-

Henry Healy,

Chairperson, Board of Management

Jane Finnegan

Principal/Secretary, Board of Management