

# Whole School Mathematics Plan 2024-2025

#### 1. Introduction

Our whole school plan for Mathematics was devised by the whole school teaching staff. It is to reflect the Primary Maths Curriculum (2023) for all primary and special schools. It is also further informed by the circular letter 0039/2023.

### 2. Rationale

In developing this whole-school plan for Numeracy, we aim to:

- To provide an overview of the Mathematics curriculum throughout the school.
- To benefit teaching and learning in our school
- To provide a framework in which more specific planning can take place
- To conform to principles of learning outlined in the Primary Maths Curriculum

### 3. 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.

### 4. Aims and Objectives

- 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.

#### 5. Strands and Strand Units

Algebra	Data and	Measures	Number	Shape and
	Chance			Space
Patterns, Rules	Data	Measuring	Uses of Number	Spatial
and relationships				Awareness and
				location
Expressions and	Chance	Time	Numeration and	Shape
equations			Counting	_
		Money	Place Value and	Transformation
			Base Ten	
			Sets and	
			Operations	
			Fractions	

## 6. Mathematical Learning Opportunities

- 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

Reasoning

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Understanding and connecting

- 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

#### 7. Key Pedagogical Practices

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

Communicating

### 8. Resources

Junior Room JI – 2 <sup>nd</sup>	Senior Room 3 <sup>rd</sup> - 6 <sup>th</sup>	Whole School
<ul> <li>Mental Maths</li> <li>Busy at Maths <ul> <li>New</li> <li>Programme</li> </ul> </li> <li>Maths <ul> <li>Manipulatives</li> </ul> </li> <li>Youtube</li> </ul>	<ul> <li>Mental Maths</li> <li>Planet Maths Text Book</li> <li>Planet Maths Satelite Book</li> <li>Maths Mate</li> <li>Youtube</li> <li>Maths Matters – Problem Solving</li> <li>Maths Problem Solving Cards</li> <li>PMC Website</li> <li>Splashlearn</li> </ul>	<ul> <li>Whiteboards</li> <li>Calculators</li> <li>Maths Manipulatives</li> <li>Weights</li> <li>Weighing Scales</li> <li>Challenge Cards</li> <li>Measuring Jugs</li> <li>Tape Measure</li> <li>Money</li> <li>Meter Sticks</li> <li>Rulers</li> <li>Compasses</li> <li>Trundle Wheel</li> <li>Ipads</li> <li>Counters</li> <li>match sticks</li> <li>counting bears (colours, small medium and large, paterns)</li> <li>abacus, pegs</li> <li>lollipop sticks</li> <li>playing cards, counting camels (simple patterns, maths puzzles/jigsaws</li> <li>number lines,</li> <li>one large foam dice,</li> <li>one small foam dice</li> <li>number flip book,</li> <li>shape flip book</li> <li>number line peg boards</li> <li>colour trays</li> <li>bear pattern cards (colour and size),</li> <li>beads,</li> <li>weight jigsaw,</li> <li>early mathematical activity cards,</li> <li>junior illustrated maths dictionary,</li> <li>bear spinner,</li> <li>dice (with just colours), number squares,</li> <li>number lines,</li> </ul>

	•	shape matching puzzle
	•	pegs
	•	cubes
	•	lego
	•	block shapes

## 9. 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 including self-assessment, conferencing, portfolio, concept-mapping, questioning, teacher observation, teacher designed tasks and tests, pupil profile and standardised testing.
- Teacher will complete a formal test at Halloween, Christmas, Easter and Summer. These class based tests will be sent home for the parents to sign to keep them informed of their child's progress.
- Class teachers input the scores of standardised tests results into Aladdin where a class graph is generated to identify class averages in all strands and strand units, and specific areas of the maths curriculum requiring attention.

## 10. Children with Different Needs

- 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 ensure learning for all children. 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 his/her 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.
- Those children who receive scores at or below SET policy's qualifying percentile on the standardised tests will have priority in attending the S.E.T team for supplementary teaching for maths. 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. 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. ICT allows children to work at their own level and challenges children of all abilities. Parents will be consulted and opportunities for further development will be explored. Teachers should keep a record of the differentiated approach adopted for these children.

## 11. Timetable

In line with the requirements as set out by the Primary Curriculum Framework for Schools and Special Schools the time spent on mathematics shall be 3 hours per week for Infants and 4 hours per week for  $1^{st} - 6^{th}$  class students. Where possible the S.E.T team and principal will facilitate team-teaching, giving priority to splitlevel classes.

#### 12. ICT

ICT is very important in the teaching of maths with opportunities for the pupils to engage in interactive activities and games developing understanding of mathematical concepts, problem solving skills and self - motivation in mathematical activities. Our Maths programmes have comprehensive ICT interactive exercises for all concepts at each level. The interactive white board is a very valuable resource in teaching of maths, with opportunities for the pupils to engage in interactive activities and games developing understanding of mathematical concepts at each level. The interactive white board is a very valuable resource in teaching of maths, with opportunities for the pupils to engage in interactive activities and games developing understanding of mathematical concepts and problem-solving skills. The ipads are also used for an individual approach to learning mathematics through ICT.

#### 13. 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.

#### 14. Staff Development

All teachers are made aware of any opportunities for further professional development through participation in courses available in Co. Waterford Education Centre or other venues. Skills and expertise within the school are shared and developed through inputs at staff meetings.

All permanent or contracted teachers will avail of all department training regarding the new primary maths curriculum.

#### 15. Implementation and Review

Class teachers are responsible for the implementation of the maths curriculum for their own classes. This plan reflects a new curriculum. Teacher will use this time to fully implement the new curriculum into their classrooms.

For the next three years, teacher will focus on a particular stands to discuss for review.

Upon next review, all teachers will reviews each strand and further develop our whole school plan.

Results from the standardised maths tests (Sigma T) will be analysed every year and areas of concern/weakness will be highlighted and discussed.

16. Ratification

This policy was formally approved by the board of management at its meeting on

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Signed: \_\_\_\_\_\_ Ciara McGrath (School Principal)

Date:\_\_\_\_\_

Signed: \_\_\_\_\_

Date:\_\_\_\_\_

Dean Paul Draper (Chairperson B.O.M.)