

## Whole School Mathematics Plan- Ardcroney NS



### **Introduction**

Ardcroney National School comprises of six mainstream class teachers, two special education teachers, and two SNA's. The school is a co-educational school, with approx. enrolment of 130 children. The Whole School Maths Plan is being 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 our school with consideration for our particular setting and DEIS status. 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.

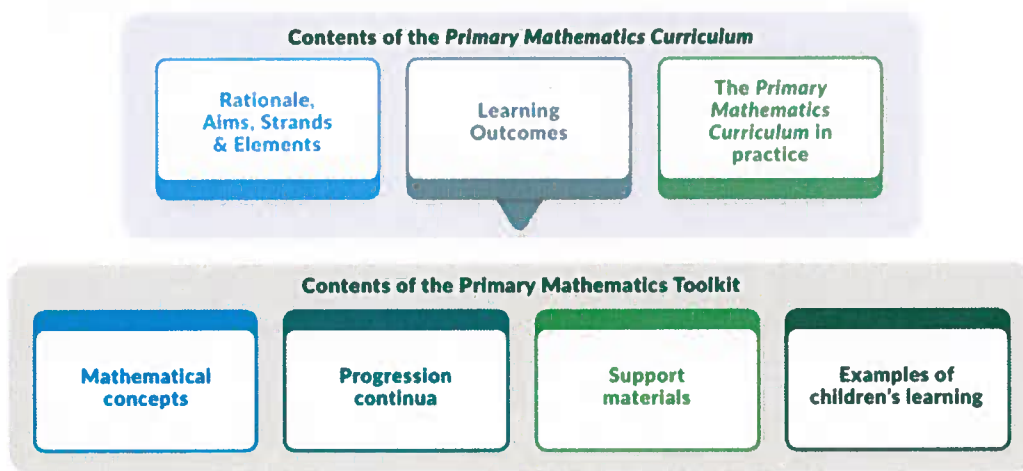
**Procedural Fluency:** the ability to use a variety of mathematical procedures in an effective and efficient way.

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.

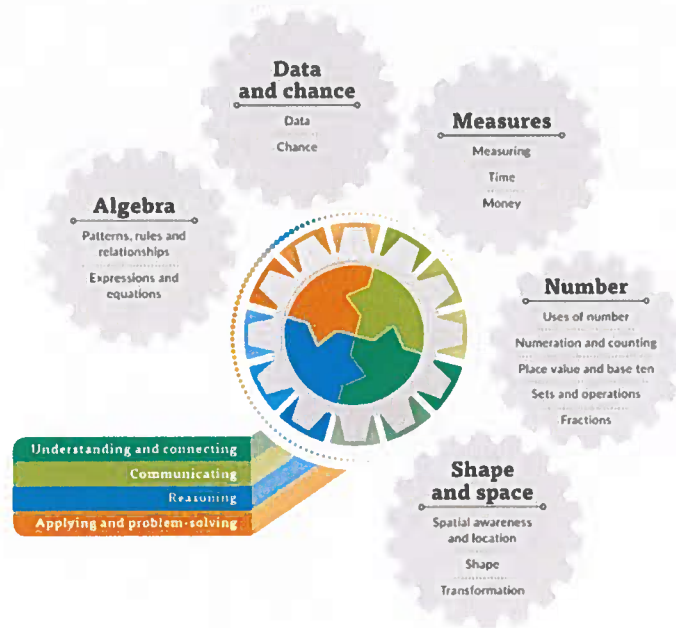
Strategic Competence: the skill to devise, represent and solve mathematical problems.

### 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

**Communicating**

- 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**

- 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

**Applying and problem-solving**

- 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

**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 at a 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 Busy at 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 Whiteboard which can be used to support the teaching of maths through providing online games, online manipulatives, access to support materials for Busy at Maths, mathematical videos and songs etc. A class set of ipads and individual computers in the Computer 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 not required that classes carry out termly assessments, but it is required that teachers have some evidence of children's progress in Maths in their assessment folder.

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 in Special Education settings 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 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. 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. While the ideal is that all children learn as part of a whole class group and that children from various settings would be integrated for Maths, it is recognised and acknowledged that this is not always possible. Integration for Maths lessons will be discussed and decided between Special Class teachers and the associated class teacher. 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>

#### **Resources**

Following whole staff CPD ( Oide) our Parents Association ran a fundraiser in term 1 ( 25/25) to raise funds to purchase concrete material sets for every classroom in the school as advised by Oide. Ms Ryan co-ordinated the inventory / purchase of new resources as part of her ISM duties. Further resources to follow with DES funding for new curriculum. The area of school textbooks will be examined especially for senior classes for 2026/27.

#### **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 ISM team member 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, Home/School Community Liaison teacher. BOM to provide oversight role.

#### **Timeline for Implementation**

- 2023/2024:
  - 2023 The new Primary Math Curriculum was introduced in.
  - 2023 Teachers to become familiar with new terms and focus
  - 2023 Principal and ISM leader attend seminar Limerick Education centre
  - 2023 School Closure day 1 for staff CPD – Limerick Education centre
  - Action- Staff to explore : Maths Talk
- 2024/ 2025:
  - 2024 School Closure day 2 for staff CPD – Ardcroney N.S.
  - 2024 Information document on PMC sent to all parents in our school-
  - October 2025 Purchase of new concrete math materials for class sets.

The proposed date from which this whole school plan will apply is January 2025. \*\*\*

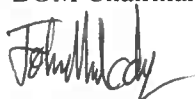
2025/2026

Embedding the Primary Math Curriculum in our school.

**Ratification & Communication**

The policy was presented to BOM and ratified on 20/4/26

BOM Chairman- John Mulcahy



School Principal- Damien Cunningham



\*\*\* New Maths Programme for 3<sup>rd</sup> to 6<sup>th</sup> Classes, 'Busy as Maths, CJ Fallon, New Edition' being purchased for implementation in teaching and learning for September 2026.