



Muslim National School

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Mathematics Policy

Introductory Statement

This policy was updated in September 2024 following the introduction of the new Mathematics Curriculum for Primary and Special Schools from Junior Infants to 6th Class. The new Primary Mathematics Curriculum in Ireland introduces a modern, inclusive, and practical approach to teaching Mathematics, ensuring that all learners build strong mathematical skills and confidence. Grounded in five key strands—**Algebra, Data and Chance, Measures, Number, Shape and Space**—it emphasises problem-solving, real-world applications, and digital tools. Designed for both mainstream and special education settings, the curriculum fosters curiosity, collaboration, and lifelong learning, equipping students with essential skills for the future. This policy was framed on the new Primary Mathematics Curriculum for Primary and Special Schools while keeping our Islamic Ethos to the fore at all times.

Rationale

The rationale for the new Primary Mathematics Curriculum (2024) emphasises the importance of fostering mathematical proficiency to prepare children for a rapidly changing world. It seeks to develop problem-solving skills, mathematical thinking, and real-life application abilities. The curriculum is designed to be inclusive and flexible, meeting the needs of all learners while supporting progression from early mathematical experiences to more complex concepts. By promoting curiosity and engagement, it ensures students build confidence and competence in mathematics to thrive in education and life.

Vision

The Muslim National School endeavours to help each child reach their full potential. In conjunction with our schools vision statement, and school aims, we present our pupils with a carefully planned and coordinated curriculum that ensures sufficient opportunity for each student to acquire essential knowledge and skills to meet the requirements of the Primary Curriculum. We aim to provide an excellent educational service, one that is planned and developed to the highest professional standards so that each pupil may benefit to the full from their experience in the Muslim National School.

Aims

The aim of the Primary Mathematics Curriculum is the development of mathematical proficiency. It encompasses conceptual understanding, procedural fluency, adaptive reasoning, strategic competence and productive disposition. Importantly, all five aspects are interwoven and interdependent.

- **Strategic Competence**: To devise, represent and solve mathematical problems.
- **Adaptive Reasoning**: To have the capacity to use logic to understand, explain and justify one's thinking.
- **Conceptual Understanding**: To understand mathematical concepts, operations and relations.
- **Procedural Fluency**: To use a variety of mathematical procedures in an effective and efficient way.
- **Productive Disposition**: To see Mathematics as practical, useful and worthwhile.

Strands and Elements

Each strand and strand unit will be covered by all classes throughout the year. The strands and strand units to be covered each year are outlined below.

Strand	Strand Unit
Algebra	Patterns, rules, relationships Expressions and equations
Data and chance	Data Chance
Measures	Measuring Time Money
Number	Uses of number, Numeration and counting Place value and base ten Sets and operations Fractions
Shape and space	Spatial awareness and location Shape Transformation

Elements

The elements describe the main categories of processes that children engage in as they learn Mathematics. These processes include:

- **Understanding and connecting**
- **Communicating**
- **Reasoning**
- **Applying and problem-solving**

Learning Outcomes

Learning Outcomes are used to describe the expected mathematical learning and development for all learners at the end of a two-year stage, when due account is taken of individual abilities and varying circumstances. Learning Outcomes articulate big mathematical ideas across different stages, and encompass the knowledge, skills and dispositions that children develop with the Primary Mathematics Curriculum. Some strand units have Learning Outcomes across all stages, some do not. These Learning Outcomes reflect the mathematical learning that is most appropriate for each stage. Reflecting the principles and pedagogical approaches in the Primary Curriculum Framework, the ‘stem’ **‘Through appropriately playful and engaging learning experiences’** is used to introduce Learning Outcomes across all stages.

A range of tools can be found in the Primary Mathematics Toolkit to support teachers in working towards Learning Outcomes across each stage.

Learning Outcomes for ALGEBRA STRAND

Through playful and engaging learning experiences, children should be able to:

Strand unit	Stage 1 Junior and Senior Infants	Stage 2 First and Second Classes	Stage 3 Third and Fourth Classes	Stage 4 Fifth and Sixth Classes
Patterns, rules and relationships	Explore, extend and create patterns and sequences.	Identify and express relationships in patterns, including growing or shrinking shape patterns and number sequences.	Identify rules that describe the structure of a pattern and use these rules to make predictions. Represent the relationship between quantities.	Identify, explain and apply generalisations, including properties of operations, mathematical models and patterns. Represent mathematical structures in multiple ways, including verbal expressions, diagrams and symbolic representations.
Expressions and equations		Interpret the meaning of symbols or pictures in number sentences.	Represent and express problems with known and unknown values in different ways to include the use of appropriate letter-symbols or words.	Articulate, represent and solve mathematical situations through the use of expressions and equations that include letter-symbols.

Learning Outcomes for DATA AND CHANCE STRAND

Through appropriately playful and engaging learning experiences, children should be able to:

Strand Unit	Stage 1 Junior and Senior Infants	Stage 2 First and Second Classes	Stage 3 Third and Fourth Classes	Stage 4 Fifth and Sixth Classes
Data	Explore, interpret and explain data in a variety of ways for a range of purposes.	Pose questions of interest, record and use data as evidence to answer those questions and communicate findings.	Pose questions of interest and collect, display and critically analyse data in a range of ways for a range of purposes and communicate the findings.	<p>Pose questions, collect, compare, summarise and represent data selectively to answer those questions.</p> <p>Critically analyse and evaluate findings; and communicate inferences, conclusions and implications from the findings.</p>
Chance			Describe and test predictability and (un) certainty in events.	<p>Use probability to make informed decisions and predictions.</p> <p>Represent and express probability in different forms.</p>

Learning Outcomes for MEASURES STRAND

Through appropriately playful and engaging learning experiences, children should be able to:

Strand Unit	Stage 1	Stage 2	Stage 3	Stage 4
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	Junior and Senior Infants	First and Second Classes	Third and Fourth Classes	Fifth and Sixth Classes
Measuring	Demonstrate an awareness that attributes such as length, weight, capacity and area can be measured and compared.	Compare, approximate and measure length, weight, capacity and area using appropriate instruments and record using appropriate units of measurement.	Compare, estimate and measure length, weight, capacity, area and volume using appropriate instruments and record and communicate appropriately. Identify the relationship between equivalent units of measurement, and rename measures using equivalent units.	Determine and calculate units of measurement in fractional and/or decimal form to solve practical problems. Find, interpret and deduce measures experimentally with increasing precision.
Time	Develop a sense of time and its uses.	Understand how time is measured, expressed and represented. Explore equivalent expressions of time.	Compare, approximate and measure time using appropriate units of measurement. Identify the relationship between different units and representations of time.	Solve and pose practical tasks and problems involving the interpretation and calculation of time.
Money	Develop an awareness of money and its uses.	Recognise the value of money and use euro and cent in a range of meaningful contexts.	Transfer knowledge of the base ten system in number to monetary contexts and use for purposes of calculation.	Solve and pose practical tasks to investigate and make informed judgments about transactions and financial plans.

Learning Outcomes for NUMBER STRAND

Through appropriately playful and engaging learning experiences, children should be able to:

Strand Unit	Stage 1	Stage 2	Stage 3	Stage 4
	Junior and Senior	First and Second	Third and Fourth	Fifth and Sixth Class

	Infants	Classes	Classes	
Uses of Number	Develop an awareness that numbers have a variety of uses.			
Numeration and counting	Develop an awareness that the purpose of counting is to quantify. Use a range of counting strategies for a range of purposes.	Demonstrate proficiency in using and applying different strategies.		
Place value and base ten	Develop a sense of ten as the foundation for place value and counting.	Understand that digits have different values depending on their place or position in a number. Use estimation to quickly determine number values and number calculations.	Explore equivalent numerical expressions of numbers using the base ten system.	Investigate how decimals and percentages (and fractions) can be compared, ordered and expressed in related terms.
Sets and operations	Recognise and understand what happens when quantities (sets) are portioned and combined.	Select, make use of and represent a range of addition and subtraction strategies.	Understand and apply flexibly the four operations; and the relationships between operations.	Build upon, select and make use of a range of operation strategies.
Fractions	Develop an awareness of part-whole relationships using a variety of models (area, length and set).	Recognise and name fractions according to their part-whole relationships. Explore the concept of equivalence in terms of simple fractions.	Compare and express in equivalent terms; and order fractions. Calculate the fraction of quantities and express in multiple ways.	Explore (model, compare, convert) the relationships between fractions, decimals and percentages. Investigate proportionality and ratios of quantities (sets).

Learning Outcomes for SHAPE AND SPACE STRAND

Through appropriately playful and engaging learning experiences, children should be able to:

Strand Unit	Stage 1 Junior and Senior Infants	Stage 2 First and Second Classes	Stage 3 Third and Fourth Classes	Stage 4 Fifth and Sixth Classes
Spatial awareness and location	<p>Develop a sense of spatial awareness in relation to their bodies and the immediate environment.</p> <p>Describe the spatial features of objects and their relative position in space.</p>	<p>Use spatial knowledge for the purposes of orientation and navigation.</p> <p>Visualize and model location using symbolic co-ordinates.</p>	<p>Describe, interpret and record directional instructions and location.</p> <p>Compare and classify angles, recognizing them as a property of shape and as a description of a turn.</p>	<p>Describe location on the full co-ordinate plane.</p> <p>Interpret scale maps and create simple scale drawings.</p>
Shape	<p>Explore and recognize properties of 3-D and 2-D shapes.</p>	<p>Examine, categorise and model 3-D and 2-D shapes.</p>	<p>Investigate and analyse the properties of 3-D and 2-D shapes and identify classes of shapes based on these properties.</p> <p>Represent shapes with drawings and models and calculate dimensions of shape.</p>	<p>Construct 3-D and 2-D models or structures given defined measurements and specific conditions.</p> <p>Investigate and construct angles in the context of shape; and solve angle-related problems.</p>
Transformation	<p>Explore the effects of shape movements.</p>	<p>Understand that shapes and line segments can be reflected, rotated and translated.</p>	<p>Model and explain the effects of transformations on shapes and line segments.</p>	<p>Perform and devise a range of steps involving transformations.</p> <p>Analyse and show how shapes are enlarged on scaled diagrams.</p>

Suggested Yearly Plan for Junior Infants

Month	Week	Strand	Strand Unit
September	1	Data and Chance	Data
	2	Data and Chance	Data
	3	Number	Numeration and Counting
	4	Number	Uses of Number
October	1	Shape and Space	Shape
	2	Number	Uses of Number
	3	Number	Uses of Number
	4	Shape and Space	Space
November	1	Number	Uses of Number
	2	Number	Numeration and Counting
	3	Number	Sets and Operations
December	1	Data and Chance	Data
	2	Number	Numeration and Counting
	3	Measures	Measuring – Length
January	1	Number	Numeration and Counting
	2	Number	Numeration and Counting
	3	Measures	Time
February	1	Number	Numeration and Counting
	2	Number	Numeration and Counting
	3	Number	Uses of Number
March	1	Shape and Space	Spatial Awareness and Location
	2	Number	Sets and Operations
	3	Measures	Measuring – Weight
	4	Number	Sets and Operations
April	1	Measures	Money
	2	Number	Sets and Operations
	3	Measures	Time
May	1	Measures	Measuring – Length
	2	Number	Numeration and Counting
	3	Measures	Measuring – Capacity
June	1	Measures	Money
	2	Algebra	Patterns, Rules and Relationships
	3	Number	Sets and Operations

SUGGESTED YEARLY PLAN FOR SENIOR INFANTS

Month	Week	Strand	Strand Unit
September	1	Number	Numeration and Counting
	2	Number	Numeration and Counting
	3	Number	Sets and Operations
	4	Number	Numeration and Counting Uses of Number
October	1	Measures	Time
	2	Number	Numeration and Counting
	3	Measures	Measuring – Length
	4	Number	Sets and Operations
November	1	Shape and Space	Shape
	2	Number	Numeration and Counting
	3	Data and Chance	Data
December	1	Number	Sets and Operations
	2	Shape and Space	Shape
	3	Shape and Space	Transformation
January	1	Measures	Time
	2	Number	Numeration and Counting
	3	Shape and Space	Spatial Awareness and Location
February	1	Number	Numeration and Counting
	2	Measures	Measuring – Length
	3	Number	Numeration and Counting
March	1	Measures	Measuring – Capacity
	2	Number	Numeration and Counting
	3	Algebra	Patterns, Rules and Relationships
	4	Measures	Money
April	1	Number	Place Value and Base Ten
	2	Measures	Measuring – Weight
	3	Measures	Time
May	1	Measures	Money
	2	Number	Sets and Operation
	3	Number	Sets and Operation
June	1	Number	Fractions
	2	Look Back	Look Back 1
	3	Look Back	Look Back 2

SUGGESTED YEARLY PLAN FOR FIRST CLASS

Month	Week	Strand	Strand Unit
September	1	All strands	Revision
	2	Number	Numeration and Counting
	3	Number	Numeration and Counting
	4	Algebra	Patterns, Rules and Relationships
October	1	Shape and Space	2-D Shapes
	2	Number	Place Value and Base Ten
	3	Number	Fractions
	4	Number	Numeration and Counting
	Assessment 1		
November	1	Number	Place Value and Base Ten
	2	Shape and Space	3-D Shapes
	3	Number	Place Value and Base Ten
December	1	Algebra	Patterns, Rules and Relationships
	Assessment 2		
	2	Number	Sets and Operations
	3	Shape and Space	Spatial Awareness and Location
January	2	Number	Place Value and Base Ten
	3	Measures	Money
	Assessment 3		
	4	Number	Place Value and Base Ten
February	2	Measures	Time
	3	Number	Sets and Operations
	4	Measures	Money
	Assessment 4		
March	1	Number	Sets and Operations
	2	Measures	Measuring – Length
	3	Number	Sets and Operations
	4	Shape and Space	Transformation
	Assessment 5		
April	1	Measures	Money
	2	Measures	Time
	3	Number	Sets and Operations
May	1	Data and Chance	Data
	Assessment 6		
	2	Measures	Measuring – Weight
	3	Measures	Money
June	1	Measures	Measuring – Capacity
	Assessment 7		
	2	Algebra	Expressions and Equations
	3	Measures	Time
	Assessment 8		

SUGGESTED YEARLY PLAN FOR SECOND CLASS

Month	Week	Strand	Strand Unit
September	1	Revision	Revision
	2	Revision	Revision
	3	Number	Numeration and Counting
	4	Number	Place Value and Base Ten
October	1	Number	Place Value and Base Ten
	2	Shape and Space	Shape
	3	Number	Sets and Operations
	4	Algebra	Expressions and Equations
	Assessment/Revision		
November	1	Number	Sets and Operations
	2	Number	Fractions
	3	Algebra	Patterns, Rules and Relationships
December	1	Measures	Money
	Assessment/Revision		
	2	Number	Sets and Operations
	3	Shape and Space	Shape
January	2	Measures	Time
	3	Number	Sets and Operations
	Assessment/Revision		
	4	Shape and Space	Spatial Awareness and Location
February	2	Measures	Measuring – Length
	3	Number	Sets and Operations
	4	Shape and Space	Measuring – Area
	Assessment/Revision		
March	1	Measures	Time
	2	Measures	Measuring – Weight
	3	Shape and Space	Transformation
	4	Measures	Money
	Assessment/Revision		
April	1	Data	Data
	2	Shape and Space	Shape – Angles
	3	Number	Sets and Operations
May	1	Measures	Money
	Assessment/Revision		
	2	Number	Sets and Operations
	3	Measures	Time
June	1	Measures	Measuring – Capacity
	2	Measures	Money
	Assessment/Revision		
	3	Algebra	Expressions and Equations
	Assessment/Revision		

SUGGESTED YEARLY PLAN FOR THIRD CLASS

Month	Week	Core book (Chapters)	Core book (Pages)	Strand	Strand Unit
September	1	1. Place Value 1	1–5	Number	Place Value and Base Ten
	2	2. Place Value 1	6–10	Number	Place Value and Base Ten
	3	3. Addition 1	11–15	Number	Sets and Operations
	4	4. 2-D Shapes	16–20	Shape and Space	2-D Shapes
		Solve the Puzzles 1	21	Various	Various
October	1	5. Subtraction 1	22–26	Number	Sets and Operations
	Assessment 1		27		
	2	6. Data	28–32	Data and Chance	Data
	3	7. Subtraction 2	33–37	Number	Sets and Operations
4	8. Transformation	38–42	Shape and Space	Transformation	
November	1	9. Multiplication 1	43–47	Number	Sets and Operations
	2	10. Money 1	48–52	Measures	Money
		Solve the Puzzles 2	53	Various	Various
	Assessment 2		54		
3	11. Multiplication 2	55–59	Number	Sets and Operations	
December	1	12. 3-D Shapes	60–64	Shape and Space	3-D Shapes
	2	13. Division 1	65–69	Number	Sets and Operations
	3	14. Fractions 1	70–74	Number	Fractions
January	2	15. Chance	75–79	Data and Chance	Chance
	Assessment 3		80		
	3	16. Multiplication 3	81–85	Number	Sets and Operations
4	17. Time 1	86–90	Measures	Time	
February	2	18. Division 2	91–95	Number	Sets and Operations
	3	19. Spatial Awareness	96–100	Shape and Space	Spatial Awareness and Location
		Solve the Puzzles 3	101	Various	Various
	4	20. Length	102–106	Measures	Measuring – Length
Assessment 4		107			
March	1	21. Multiplication 4	108–112	Number	Sets and Operations
	2	22. Division 3	113–117	Number	Sets and Operations
	3	23. Sequences	118–122	Algebra	Patterns, Rules and Relationships
	4	24. Fractions 2	123–127	Number	Fractions
April	1	25. Addition and Subtraction	128–132	Number	Sets and Operations
	Assessment 5		133		
	2	26. Money 2	134–138	Measures	Money
3	27. Capacity	139–143	Measures	Measuring – Capacity	
May	1	28. Formal Multiplication	144–148	Number	Sets and Operations
	2	29. Time 2	149–153	Measures	Time
		Solve the Puzzles 4	154	Various	Various
	3	30. Fractions 3	155–159	Number	Fractions
Assessment 6		160			
June	1	31. Weight	161–165	Measures	Measuring – Weight
	2	32. Decimals	166–170	Number	Place Value and Base Ten
	3	33. Area	171–175	Measures	Measuring – Area
Assessment 7		176			

SUGGESTED YEARLY PLAN FOR FOURTH CLASS

Month	Week	Core book (Chapters)	Core book (Pages)	Strand	Strand Unit
September	1	1. Place Value 1	1–5	Number	Place Value and Base Ten
	2	2. Place Value 2	6–10	Number	Place Value and Base Ten
	3	3. Addition	11–15	Algebra	Expressions and Equations
	4	4. 2-D Shapes	16–20	Shape/Space	2-D Shapes
		Solve the Puzzles 1	21	Various	Various
October	1	5. Subtraction	22–26	Algebra	Expressions and Equations
		Assessment 1	26		
	2	6. Data	28–32	Data/Chance	Data
	3	7. Multiplication 1	33–38	Number	Sets and Operations
4	8. Transformation	39–43	Shape/Space	Transformation	
November	1	9. Money 1	44–48	Measures	Money
	2	10. Division 1	49–54	Number	Sets and Operations
		Solve the Puzzles 2	55	Various	Various
		Assessment 2	56		
3	11. Multiplication 2	57–61	Algebra	Expressions and Equations	
December	1	12. 3-D Shapes	62–66	Shape/Space	3-D Shapes
	2	13. Division 2	67–71	Algebra	Patterns, Rules and Relationships
	3	14. Fractions 1	72–76	Number	Fractions
January	2	15. Chance	77–81	Data/Chance	Chance
		Assessment 3	82		
	3	16. Decimals 1	83–87	Number	Place Value and Base Ten
	4	17. Time 1	88–92	Measures	Time
February	2	18. Length 1	93–97	Measures	Measuring – Length
	3	19. Spatial Awareness	98–102	Shape/Space	Spatial Awareness and Location
		Solve the Puzzles 3	103	Various	Various
	4	20. Money 2	104–108	Measures	Money
		Assessment 4	109		
March	1	21. Decimals 2	110–114	Number	Place Value and Base Ten
	2	22. Multiplication 3	115–120	Algebra	Patterns, Rules and Relationships
	3	23. Pattern	121–125	Algebra	Patterns, Rules and Relationships
	4	24. Fractions 2	126–130	Number	Fractions
April	1	25. Time 2	131–135	Measures	Time
		Assessment 5	136		
	2	26. Capacity	137–141	Measures	Capacity
3	27. Decimals 3	142–146	Number	Sets and Operations	
May	1	28. Multiplication and Division	147–151	Number	Sets and Operations
	2	Solve the Puzzles 4	152	Various	Various
		29. Weight	153–157	Measures	Measuring – Weight
3	30. Time 3	158–162	Measures	Time	
		Assessment 6	163		
June	1	31. Length 2	164–168	Number	Measuring – Length
	2	32. Number Sentences	169–173	Algebra	Expressions and Equations
	3	33. Area	174–178	Shape/Space	Measuring – Area
		Assessment 7	179		

SUGGESTED YEARLY PLAN FOR FIFTH CLASS

Month	Week	Core book (Chapters)	Core book (Pages)	Strand	Strand Unit
September	1	1. Place Value to 99,999	1–5	Number	Place Value and Base Ten
	2	2. Addition	6–10	Number	Sets and Operations
	3	3. Subtraction	11–15	Number	Sets and Operations
	4	4. Angles	16–20	Shape and Space	Shape
		Solve the Puzzles 1	21	Various	Various
October	1	5. Averages	22–26	Data and Chance	Chance
	Assessment 1		27		
	2	6. Data	28–32	Data and Chance	Data
	3	7. Multiplication1	33–37	Number	Sets and Operations
	4	8. 2-D Shapes	38–42	Shape and Space	Shape
November	1	9. Division 1	43–48	Number	Sets and Operations
	2	10. Spatial Awareness	49–53	Shape and Space	Spatial Awareness and Location
		Solve the Puzzles 2	54	Various	Various
	Assessment 2		54		
	3	11. Fractions1	56–61	Number	Fractions
December	1	12. Money	62–67	Measures	Money
	2	13. Transformation	68–72	Shape and Space	Transformation
	3	14. Fractions 2	73–78	Number	Fractions
January	2	15. 3-D Shapes	79–83	Shape and Space	Shape
	Assessment 3		84		
	3	16. Decimals	85–90	Number	Place Value and Base Ten
	4	17. Length	91–95	Measures	Measuring – Length
February	2	18. Multiplication 2	96–101	Number	Sets and Operations
	3	19. Division 2	102–107	Number	Sets and Operations
		Solve the Puzzles 3	108	Various	Various
	4	20. Percentages 1	109–113	Number	Place Value and Base Ten
Assessment 4		114			
March	1	21. Time	115–119	Measures	Time
	2	22. Area and Perimeter	120–125	Measures	Area and Perimeter
	3	23. Percentages 2	126–130	Number	Fractions – Percentages
	4	24. Directed Numbers	131–136	Algebra	Expressions and Equations
April	1	25. Using the Calculator	137–141	Number	Sets and Operations
	Assessment 5		142		
	2	26. Weight	143–147	Measures	Measuring – Weight
	3	27. Chance	148–152	Data and Chance	Chance
May	1	28. The Circle	153–157	Shape and Space	Shape
	2	Solve the Puzzles 4	158	Various	Various
		29. Number Theory	159–163	Number	Sets and Operations
	3	30. Capacity	164–168	Measures	Measuring – Capacity
Assessment 6		169			
June	1	31. Pie Charts	170–174	Data and Chance	Data
	2	32. Number Sentences	175–179	Algebra	Expressions and Equations
	3	Solve the Puzzles 5	180	Various	Various
	33. Rules and Properties	181–185	Algebra	Patterns, Rules and Relationships	
Assessment 7		186			

SUGGESTED YEARLY PLAN FOR SIXTH CLASS

Month	Week	Core book (Chapters)	Core book (Pages)	Strand	Strand Unit
September	1	1. Place Value	1–5	Number	Place Value and Base Ten
	2	2. Addition and Subtraction 1	6–11	Number	Sets and Operations
	3	3. Addition and Subtraction 2	12–16	Algebra	Expressions and Equations
	4	4. 2-D Shapes 1	17–21	Shape and Space	Shape
		Solve the Puzzles 1	22	Various	Various
October	1	5. Averages and Data	23–28	Data and Chance	Data
	Assessment 1		29		
	2	6. Multiplication 1	30–34	Number	Sets and Operations
	3	7. Number Theory	35–40	Number	Sets and Operations
	4	8. Division 1	41–45	Algebra	Patterns, Rules and Relationships
November	1	9. Money 1	46–50	Measures	Money
	2	10. Fractions 1	51–56	Number	Fractions
		Solve the Puzzles 2	57	Various	Various
	Assessment 2		58		
	3	11. 2-D Shapes 2	59–63	Shape and Space	Shape
December	1	12. Fractions 2	64–69	Number	Fractions
	2	13. 3-D Shapes	70–74	Shape and Space	Shape
	3	14. Decimal Fractions	75–79	Number	Place Value and Base Ten
January	2	15. Length	80–84	Measures	Measuring – Length
	Assessment 3		85		
	3	16. Multiplication 2	86–91	Number	Sets and Operations
	4	17. Spatial Awareness	92–96	Shape and Space	Spatial Awareness and Location
February	2	18. Division 2	97–102	Number	Sets and Operations
	3	19. Fractions, Decimals and Percentages 1	103–107	Number	Place Value and Base Ten
		Solve the Puzzles 3	108	Various	Various
	4	20. Time	109–113	Measures	Time
Assessment 4		114			
March	1	21. Algebra: Expressions and Equations	115–119	Algebra	Expressions and Equations
	2	22. Fractions, Decimals and Percentages 2	120–125	Number	Place Value and Base Ten
	3	23. Chance	126–130	Data and Chance	Chance
	4	24. Directed Numbers	131–135	Algebra	Patterns, Rules and Relationships
April	1	25. Weight	136–140	Measures	Measuring – Weight
	Assessment 5		141		
	2	26. Fractions, Decimals and Percentages 3	142–146	Number	Place Value and Base Ten
	3	27. Area and Perimeter	147–152	Measures	Measuring – Area
May	1	28. Money 2	153–157	Measures	Money
	2	Solve the Puzzles 4	158	Various	Various
		29. The Circle	159–163	Shape and Space	Shape
	3	30. Symmetry, Tessellation and Transformation	164–168	Shape and Space	Transformation
Assessment 6		169			
June	1	31. Pie Charts	170–174	Data and Chance	Data
	2	32. Capacity	175–179	Measures	Measuring – Capacity
	3	Solve the Puzzles 5	180	Various	Various
		33. Patterns, Rules and Relationships	181–185	Algebra	Patterns, Rules and Relationships

Approaches and Methodologies

The following approaches and methodologies will be used:

- **The use of manipulatives:** Children will have access to and use of a broad range of mathematical equipment during lessons to support their learning. Children move from activities using concrete resources to activities using pictorial resources to abstract activities to promote understanding.
- **Talk and Discussion:** Talk and discussion is seen as an integral part of the learning process. Opportunities should be provided during the mathematics class for pupils to discuss problems and given a chance to explore and discuss alternative ways of approaching a problem with the teacher, other individual pupils and in groups.
- **Active Learning/ Guided Discovery:** As part of the mathematics programme for each class, children are provided with structured opportunities to engage in exploratory activities. Under the teacher's guidance they are encouraged to construct meaning, to develop mathematical strategies for problem solving and to develop self-motivation. These activities should be outlined in teachers' planning.
- **Language:** There is a strong link between language and concept acquisition. We feel it is important to have a common approach to the terms used and the correct use of symbol name. A list of language that the pupils are expected to be introduced to at each class level can be found at appendix 1.
- **Tables:** Number facts up to ten will be memorised by the end of 2nd class. Addition facts will be memorised in First Class. Subtraction facts will be memorised in Second Class. Multiplication and division facts will be memorised throughout Third and Fourth class. All tables will be revised in Fifth and Sixth Class.
- **Skills:** The following skills will be acquired by the pupils through the study of the various strands in the Curriculum(See page 25 from Primary Maths Curriculum, 2024):
 - Understanding and connecting
 - Communicating
 - Reasoning
 - Applying and problem solving

Every strand provides opportunities for acquiring these skills. Opportunities should also be provided to develop these skills in other curricular areas such as Science and Geography.

- **Maths Wall:** To increase pupils' awareness of mathematics in the environment teachers are encouraged to have a maths wall.
- **Maths Week:** Each year the school celebrates maths week in term 1. A Maths Eyes

Competition takes place throughout the week to promote the importance of mathematics among the whole school community.

Organisation and Structure

- **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 a number of tools for assessing pupils' work including:

- Peer and self-assessment methods
- observations
- questioning
- conferencing
- tasks
- feedback
- teacher observation
- teacher designed tasks and tests
- standardised testing
- Worksheets and work in copies (portfolios)
- Assessment games
- Extension and enrichment activities based on the strand unit being taught.
- Test results are kept by the class teacher
- Oral tests (tables, continuation of number patterns, ...)
- Problem solving exercises that use a variety of mathematical skills
- Standardised Assessment

- **Children of Different Needs**

The Muslim National School is dedicated to helping each child to achieve. It is the policy of our school that all children will participate in Mathematics within their class. Children with particular special needs will receive extra support from Special Education Teachers to provide a mathematical education at an appropriate level which allows the child to succeed. This may be in-class or withdrawn support.

Extension material will be available in each classroom for gifted children who finish work early or need additional challenges. Work at a more accessible level will also be available for those who need it. The responsibility for providing this work will be discussed and agreed at the monthly planning meeting. Normal practice involves each teacher preparing work to meet the needs of all pupils in their group.

- **Equality of Participation and Access**

All children are provided, as much as possible, with equal access to all aspects of the Mathematics curriculum, with their abilities being the determining factor. Boys and girls are afforded equal opportunities to engage in and benefit from mathematical activities.

- **Timetable**

Infant classes will receive 3 hours and 25 minutes of formal instruction per week, while pupils from 1st to 6th class will receive a minimum of 4 hours and 10 minutes of instruction weekly.

Junior and Senior Infant classes can, where possible, integrate math into other subjects including Aistear where applicable. Second to Sixth Class may use this extra time to practice tables.

The following strategies are being used by teachers to support this initiative:

- Skip counting
- Reciting tables
- Use of the inversion method
- Table patterns
- Multiplication squares

Suggested games for practising tables include:

- Buzz Fizz
- Around the World
- Hit the Button
- Bingo
- Team Tag
- Maths karate
- Sparkles

- **Withdrawal of Pupils for Supplementary Teaching**

Pupils from First Class to Sixth Class complete SIGMA-T tests each year and may receive learning support the following school year based on these results – in line with the school’s assessment policy.

Collaboration between the class teacher and Special Education Teacher is vital to ensure needs are identified and met. There is a planning meeting each month where the plans for the coming month are outlined and the previous month is evaluated. This allows both the mainstream and Special Education Teacher to plan collaboratively and discuss the progress of the pupils. Pupils who are withdrawn for mathematics should also be present for the mainstream mathematics lesson.

- **Homework**

Homework will be given in accordance with the school’s homework policy. It will:

- Reinforce work done in the classroom during the school day
- Be achievable and therefore differentiate according to children’s needs as appropriate
- Foster independent work skills
- Link what is happening in the classroom and the home
- Increase in quantity in accordance with class grouping
- Ask children on occasions to record and engage in active learning depending on the Strand being taught

1st to 6th classes will be given tables to learn as part of their mathematics homework.

Resources and ICT

- **Manipulatives**

We acknowledge the importance of concrete materials in the development of mathematical concepts for children in all classes. Teachers are encouraged to introduce all topics using physical resources, before moving to pictorial and finally the use of the abstract. We have well- resourced maths presses with resources for each strand of the mathematics curriculum. A member of the school management team will be responsible for the storage and maintenance of the maths presses. There is a full list of resources available in the maths drive folder.

- **Textbooks**

The selected textbooks support the objectives of the Primary School Curriculum in Mathematics and are used as a resource to guide teaching. Currently, the school uses Busy at Maths by CJ Fallon for Junior Infants through Fourth Class, and Mathemagic by CJ Fallon for Fifth and Sixth Class. Teachers are encouraged to supplement these textbooks with additional resources, including materials from the OIDE website, to enrich the learning experience. Textbook selections may be adjusted based on teacher preferences and instructional needs.

- **Calculators**

From Third Class upwards pupils are permitted to use calculators alongside traditional paper and pencil methods. Calculators are useful for handling large numbers, to check answers, to explore the number system and to remove computational barriers for low attaining pupils.

- **ICT in the classroom**

Each teacher has a laptop and Interactive Board available for use in class. Classes have access to tablets also. A timetable has been devised for the use of the tablets. Internet resources can be used to enhance learning in mathematics through games and activities. All internet use must be in line with the school's Internet Acceptable Use policy.

Other Organisational Considerations

- **Individual Teacher's Planning and Reporting**

Teacher's plans should be based on the content set out in this policy. Approaches and methodologies are provided in this policy for teacher's use and should be followed accordingly. Teachers are encouraged to evaluate the teaching and learning by reflecting in their Cuntas Miosúil about what worked well, what did not work well and what could be changed for future months.

- **Integration**

Opportunities will be sought to meaningfully integrate mathematics with other curricular areas. Class teachers will work in collaboration with Religion and Arabic teachers to ensure opportunities for integration are maximised.

- **Staff Development**

Teachers are made aware of any opportunities for continuous professional development and are encouraged to up skill themselves through participation in these courses. Skills and expertise within the school are shared and developed through input at staff meetings. In

addition, teachers are also invited to participate in the Continual Professional Development programme in the school as well as in informal observations which take place regularly each year.

- **Parental Involvement**

Parents are encouraged to support the school's plan for mathematics. Parent / teacher meetings are held annually. Teachers and parents are afforded the opportunity to discuss each individual child's progress in mathematics and ways of supporting the child at home. Parents and teachers are welcome to make individual arrangements to discuss matters of relevance at other times throughout the school year.

- **Community Links**

Members of the local community may be invited into the school to contribute to the teaching and learning of mathematics if appropriate. Permission for this will be sought from the school's management in advance.

The local environment may be used to carry out elements of the mathematics curriculum, for example, maths trails. Two members of staff must accompany each class if they are leaving the school grounds.

Implementation

- **Roles and Responsibilities**

This plan will be supported, implemented and reviewed by the Board of Management, the principal and the teaching staff in the Muslim National School. Class teachers and support teachers should show evidence of using this plan in their short and long term planning. The principal will inspect planning to ensure the plan is being followed in each class.

- **Success Criteria**

It will be evident that the mathematics plan has been implemented successfully when:

- Teacher's long and short term planning is based on this school plan. Both continuity of content and methodologies should be evident in teacher's planning and preparation.
- Procedures and activities outlined in this plan are followed.
- Progression is evident from year to year.

The indicators that the plan has achieved its aims will be based on:

- The results of annual standardised tests.
- The results of on-going assessments both formal and informal which should indicate whether pupils are acquiring an understanding of mathematical concepts and a proficiency in mathematical skills appropriate to their age and ability.
- Inspectorate reports.

- Feedback from teachers implementing the plan.
 - Feedback from parents.
 - The pupils have a positive attitude towards mathematics and an appreciation of its importance in their daily lives.
- **Ratification and Communication**

This mathematics plan was ratified by the Board of Management on 30/01/2025. The ratified policy is made available through the school's Google Drive account. Parents may view a hard copy of the policy in the school office by appointment.

This Policy was approved by the Board of Management at its meeting on 30th January 2025

Signed: *Asiya Allwash* Date: 30/01/2025
(Chairperson of the Board of Management)

Signed: *John McDonnell* Date: 30/01/2025
(School Principal)

Appendix 1: Suggested Mathematical Language by Class Level

Junior Infants:

sort	object	colour
same as,	match/mark, join	same
length, weight, height	big, bigger, biggest	tall, taller, tallest
full, empty, 'holds'	small, smaller, smallest	long, longer, longest
short, shorter, shortest	all terms re. time moving.	to, from, before, after
short	lighter, lightest	early, late
set	curved, round	inside, above
more, less	few/fewer	others
straight, corner,	outside, inside	below, above
too many, enough	circle, rectangle, square	roll, stacked
triangle		
how many more?	who? how? why?	pattern
first, second, third etc.	zero	coins
shape	numerals one, two etc.	how much

Senior Infants as Junior Infants: plus the following:

compare	least	most, heaviest, etc
add	same as	how far/how far more?
greater than/less than	money	break up groups
high, low	count on / back	wide narrow
today, yesterday, tomorrow		thick/thin
		months, seasons
days of week etc.	holds more than/less than	o'clock
holds most/least/the same over, under, on, in, open,	closed	amount
joined, between, next to	charts,	how long, short, heavy
straight	subtract/take away, go back	measure
out, front, back, high low	3D shapes, names,	copy
around,	number strip	words for numerals
cube,/cuboid		

1st Class: as infants plus the following:

less, more, number	addition, subtraction	missing numeral
smaller, greater	rest of them	make the same as
take away	measure	single digit
how many more	change	centimetre
days of week	tens/ones/unit	group, order
between	months	calendar
clock,	make tens	subtract, steps
problem	dienes blocks	half past
circle, square, rectangle	graph	abacus
triangle, side, corner	cube, cuboid, pyramid	bar chart
faces, edges	sphere, cylinder, cone	pictogram
etc.		counting in 2's
left over	magic square	symmetry
number line	100 square	capacity
fraction	odd, even.	

2nd Class: as 1st plus the following:

missing numbers	half quarters	forward, backwards
shaded set	rename	place value
in order	grid	add, group
metre, centimetre	sign	difference between
hundred	decimetre	counting
shaped	base 10's etc.	distance
number sentence	minutes/hours, quarter past/to	different
digital	code	midnight
subtract	midday	magic square
timetable	seasons	2D, 3D hexagon
tessellate	a.m. p.m.	pictogram
prism, cuboid, cylinder	black graph.	

3rd Class: as 2nd plus the following:

symmetry
language of division and multiplication mathematic
sentence versus written $2 \times 3 = 6$
divide,/divided by/division etc.
product
factors
set
angle, right angle, horizontal, vertical, diagonals
rectangle, cuboid, triangle, perimeter

covering area

capacity/liquid/litres, kls
weight - grammes / kgs
length - metres, cms, mms.
pictogramme
decimal
fractions - halves, quarters

4th Class: as 3rd plus the following:

capacity
division and multiplication - estimate, remainder
quantity
more, less
weight
G. kg. Light, lighter, etc. heavy objects.
parallel, congruent,
Pointed, straight, square, solid, angle, acute,
shade, frame,
Obtuse etc.

more/less. Litre, millilitres
into, by, from, under, value,

shapes
Horizontal, vertical, sloping,

half, quarter, eighth etc/divide,
figure.

5th & 6th Class: as 4th plus the following:

fractions
percentage
area
length, width, surface, diameter
circumference, radius, base, perpendicular height,
cuboid, pyramid
axis, reflection, image, parallel,
protractor.

shapes,
octagon,
rhombus, quadrilateral,
oval, polygon
3D - cylinder - sphere, cone, cube,

triangular prism, tetrahedron
rotation, symmetrical

Operational Language

Addition More than Total And Sum of Plus Add Increase	Subtraction Less than Minus Decrease Subtract Difference Take away	Equals Means Will be Represents Is Answer is Same as
Multiplication Multiply Square Power of Times Product of Of	Division Divide Give Share Split Group Give How many	