Year 5 - Autumn Term MTP

	Starter & Counting	O&M or reasoning activity	Main Focus & Independent work	Arithmetic (teach on Monday, test on Friday)
Week 1	Each day there is a ' While you wait' starter activity on the board to promote fluency, e.g. ' Fluent in 5' There is a short daily counting activity, e.g. selected times table and related divisions, number sequences, counting forwards and backwards in 10s, 100s, 1,000s etc.	These activities are planned using formative assessment and Big Maths assessment. To be discussed and agreed in year groups.	Place value: * Read, write and order numbers to 1,000,000 * Value of digits * Round numbers	Adding and subtracting 10, 100, 1000
Week 2			Place value: * Number sequences * Count forwards and backwards in steps of 10, 100 and 1,000 * Roman numerals to 1,000	Multiplying by 10, 100 and 1,000
Week 3			Addition and Subtraction: * Negative numbers and differences * Formal methods for addition and subtraction	Dividing by 10, 100 and 1,000
Week 4			Addition and Subtraction: * Mental strategies for addition and subtraction (including rounding) * Solve addition and subtraction multistep problems	Addition
Week 5			Statistics: * Interpret line graphs * Complete, read and interpret timetables	Subtraction
Week 6			Multiplication and Division: * Formal methods for multiplication and division	Multiplication
Week 7			Multiplication and Division: * Properties of number – Factor, Common factor, Multiple, Prime, Prime factor, Composite * Squared and Cubed numbers	Division
Week 8			Fractions: * Compare and order fractions * Equivalent fractions * Add and subtract fractions	Long division
Week 9			Fractions: * Mixed numbers and improper fractions * Multiply proper fractions and mixed numbers by whole numbers.	Long division

Week 10			Fractions: * Recognise % * Fraction, decimal, percentage equivalence	Factors of numbers
Week 11			Measures: * Know equivalent metric units and convert between them. *Know and use approximate conversions between metric and imperial measures.	Adding and subtracting fractions
Week 12			Measures: * Perimeter and area of squares, rectangles and composite shapes. Geometry: * Use knowledge of rectangles to find missing lengths * Identify 3D shapes from 2D representations	Multiplying fractions

Year 5 - Spring Term MTP

	Starter & Counting	O&M or reasoning activity	Main Focus & Independent work	Arithmetic (teach on Monday, test on Friday)
Week 1	Each day there is a ' While you wait' starter activity on the board to promote fluency, e.g. ' Fluent in 5' There is a short daily counting activity, e.g. selected times table and related divisions, number sequences, counting forwards and backwards in 10s, 100s, 1,000s etc.	These activities are planned using formative assessment and Big Maths assessment. To be discussed and agreed in year groups.	Multiplication and Division: * Formal written methods	Multiply by 10, 100, 1,000
Week 2			Multiplication and Division: * Solve multiplication and division word problems	Divide by 10, 100, 1000
Week 3			Geometry: * Angles – estimate, draw and measure * Calculate angles around a point, calculate missing angles. * Calculate missing angles in rectangles	Addition and Subtraction
Week 4			Geometry: * Read and plot coordinates * Translation and reflection of shapes in coordinate grid	Multiplication and Division
Week 5			Fractions: * Compare and order fractions * Equivalent fractions * Mixed number and improper fractions	Missing number problems
Week 6			Fractions: * Add and subtract fractions * Multiply fractions	Ordering pairs of fractions using <, >, =
Week 7			Fractions, decimals and percentages: * Fractions of amounts * Understand percent % * Fraction, decimal and percent equivalence	Adding fractions
Week 8			Statistics: * Complete, read and interpret information in tables (including timetables) * Interpret information in graphs and make comparisons between a variety of graphs.	Multiplying fractions
Week 9			Place Value: * Order and round numbers (including decimals) * Negative numbers	Fractions of amounts

			* Roman numerals – recognising years	
Week 10			Addition and Subtraction: * Multistep problems	Four operations

Year 5 - Summer Term MTP

	Starter & Counting	O&M or reasoning activity	Main Focus & Independent work	Arithmetic (teach on Monday, test on Friday)
Week 1	Each day there is a ' While you wait' starter activity on the board to promote fluency, e.g. ' Fluent in 5' There is a short daily counting activity, e.g. selected times table and related divisions, number sequences, counting forwards and backwards in 10s, 100s, 1,000s etc.	These activities are planned using formative assessment and Big Maths assessment. To be discussed and agreed in year groups.	Decimals: * Complements to 1 * Mental strategies * Formal methods for addition and subtraction of decimals	Multiplying and dividing decimals by 10, 100 and 1,000
Week 2			Measure: * Convert between metric measures * Know and use approximate conversions between metric and imperial measures. * Solve problems converting between units of time	Adding and subtracting decimals
Week 3			Measure: * Compare, estimate and measure volume * Compare, estimate and measure capacity	Measures - equivalence
Week 4			Four operations and Measure: * Use 4 operations to solve problems involving measures (including scaling)	Missing numbers
Week 5			Geometry: * Explore and classify shapes and their properties (including classifying triangles) * Visualisation * Solve shape problems	Four operations
Week 6			Fractions: * Add, subtract and multiply fractions (including mixed numbers and improper factions) * Solve problems including calculating fractions of amounts.	Rounding numbers (including decimals)
Week 7			Fractions, decimals & percentages: * Solve problems which require knowing fraction, decimal and percentage equivalents	Ordering numbers (including decimals)
Week 8			Geometry: * Draw and measure angles	Adding, subtracting, multiplying fractions

			* Solve problems involving calculating missing angles (including distinguishing between regular and irregular polygons)	
Week 9			Four operations * Solve problems involving the 4 operations * investigate properties of numbers (including, primes, factors, square numbers and cubed numbers)	Missing numbers
Week 10			Statistics * Collect, present and interpret data in charts and graphs to solve a problem	Measures – equivalence
Week 11			Measure * Solve problems involving area, perimeter and volume	Fractions of amounts
Week 12			Investigations and consolidation	Number sequences

Planning

In addition to the MTP, there are **two assessment weeks to be added in for each term**. During these two weeks, maths lessons are used for assessment, investigations and to revisit any areas felt appropriate.

When planning, refer to the 'St Michaels Maths Progression Map' and the 'Calculation Policy' to ensure continuation, progression and variation

Resources to support planning:

Maths No Problem, Power Maths, White Rose, Third Space learning and Nrich

https://whiterosemaths.com/resources/schemes-of-learning/primary-sols/
If you click on the 'objective block' that you are covering on the table, it downloads a document which has the National Curriculum objectives broken down into small steps. It includes examples of varied fluency and reason and problem solving.

Maths lessons at St Michael's

Daily maths lessons consist of:

* **a while you wait starter/fluent in five** – where the focus is on fluency.

* **a short counting activity**

* **a whole class oral and mental activity** (the objectives for these are taken from weekly formative assessment, e.g. big maths). This may be a problem solving or reasoning question to work through together or a practise of skills that will support with the lesson

(e.g. an activity on multiplying and dividing by 10, 100 and 1,000 prior to the main lesson focus on measures).

* **whole class teaching of the main objective followed by independent work**. Teaching is supported by the CPA (concrete, pictorial, abstract) approach where appropriate. Key vocabulary for the lesson is displayed on the smart slides and referenced during the lesson. Where appropriate, a 'stem sentence' is displayed on the smart slides which supports learning (e.g. for addition the stem sentence may be 'Add the smallest value first'; for coordinates 'The horizontal coordinate is first and the vertical coordinate second'; for adding and subtracting fractions 'Check that the denominators are the same before adding or subtracting').

* **a 'finisher's challenge'** prepared (photocopied/on board) to extend and deepen the thinking of children who successfully complete the independent work. This challenge should provide the children with the opportunity to apply their understanding (rather than just giving 'bigger numbers').

In addition there are **two weekly arithmetic sessions**, one is a taught session and the other a skills practise session.