



Mathematics
Mastery

Curriculum Maps Reception to Y6



Mathematics Mastery
Primary

Mathematics Mastery Primary is a curriculum programme from



Ark**Curriculum+**



Reception Curriculum Map

Autumn	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
	Early mathematical experiences			Pattern and early number		Numbers within 6		Addition and subtraction within 6	Measures	Shape and sorting	Calendar and time
	<ul style="list-style-type: none"> Classifying objects based on one attribute Matching equal and unequal sets Comparing objects and sets Ordering objects and sets 			<ul style="list-style-type: none"> Recognise, describe, copy and extend colour and size patterns Count and represent the numbers 1 to 3 Estimate and check by counting 		<ul style="list-style-type: none"> Count up to six objects. One more or one fewer Order numbers 1 – 6 Conservation of numbers within six 		<ul style="list-style-type: none"> Explore zero Explore addition and subtraction 	<ul style="list-style-type: none"> Estimate, order, compare, discuss and explore capacity, weight and lengths 	<ul style="list-style-type: none"> Describe, and sort 3-D shapes Describe position accurately 	<ul style="list-style-type: none"> Days of the week, seasons Sequence daily events
Spring	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9		
	Numbers within 10		Addition and subtraction within 10	Numbers within 15		Grouping and sharing		Numbers within 20	Doubling and halving		
	<ul style="list-style-type: none"> Count up to ten objects Represent, order and explore numbers to ten One more or fewer, one greater or less 		<ul style="list-style-type: none"> Explore addition as counting on and subtraction as taking away 	<ul style="list-style-type: none"> Count up to 15 objects and recognise different representations Order and explore numbers to 15 One more or fewer 		<ul style="list-style-type: none"> Counting and sharing in equal groups Grouping into fives and tens Relationship between grouping and sharing 		<ul style="list-style-type: none"> Count up to 10 objects Represent, order and explore numbers to 15 One more or fewer 	<ul style="list-style-type: none"> Doubling and halving Relationship between 		
Summer	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9		
	Shape and pattern	Addition and subtraction within 20		Money	Measures		Depth of numbers within 20		Numbers beyond 20		
	<ul style="list-style-type: none"> Describe and sort 2-D and 3-D shapes Recognise, complete and create patterns 	<ul style="list-style-type: none"> Commutativity Explore addition and subtraction Compare two amounts Relationship between doubling and halving 		<ul style="list-style-type: none"> Coin recognition and values Combinations to total 20p Change from 10p 	<ul style="list-style-type: none"> Describe capacities Compare volumes Compare weights Estimate, compare and order lengths 		<ul style="list-style-type: none"> Explore numbers and strategies Recognise and extend patterns Apply number, shape and measures knowledge Count forwards and backwards 		<ul style="list-style-type: none"> One more one less Estimate and count Grouping and sharing 		



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Year 1 Curriculum Map

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Autumn	Numbers to 10		Addition and subtraction within 10		Shape and patterns		Numbers to 20		Addition and subtraction within 20	
	<ul style="list-style-type: none"> • Represent, compare and explore numbers within 10 • One more and one less • Doubling and halving 		<ul style="list-style-type: none"> • Represent and explain addition and subtraction • Commutativity • Addition and subtraction facts 		<ul style="list-style-type: none"> • Identify, describe, sort and classify 2-D and 3-D shapes • Investigate repeating patterns • Use and follow instructional and positional language 		<ul style="list-style-type: none"> • Identify, represent, compare and order numbers to 20 • Doubling and halving • One more and one less 		<ul style="list-style-type: none"> • Represent and explain addition and subtraction strategies including 'Make Ten' • Use known facts to add and subtract 	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	
Spring	Time		Exploring calculation strategies within 20		Numbers to 50		Addition and subtraction within 20		Fractions		Measures: Length and mass
	<ul style="list-style-type: none"> • Read, write and tell the time to o'clock and half past on analogue clock • Sequencing daily activities • Whole and half turns linked to time 		<ul style="list-style-type: none"> • Model, explain and choose addition and subtraction strategies 		<ul style="list-style-type: none"> • 2-digit numbers – represent, sequence, explore, compare. • Count in 2s, 5s and 10s • Describe and complete number patterns 		<ul style="list-style-type: none"> • Illustrate, explain and link addition and subtraction with equations • Apply 'Make Ten' strategy • Use language to quantify and compare difference 		<ul style="list-style-type: none"> • Identify $\frac{1}{2}$ and $\frac{1}{4}$ of a shape or object • Find $\frac{1}{2}$ and $\frac{1}{4}$ of a quantity 		<ul style="list-style-type: none"> • Compare and measure lengths and mass using cm and kg • Doubling and halving

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Summer	Numbers 50 to 100 and beyond		Addition and subtraction		Money		Multiplication and division		Measures: Capacity and volume	
	<ul style="list-style-type: none"> • Read, write, represent, compare and order numbers to 100 • One more / fewer, ten more / fewer • Identify number patterns 		<ul style="list-style-type: none"> • Explore addition and subtraction involving 2-digit numbers and ones • Represent and explain addition and subtraction with regrouping • Investigate number bonds within 20 		<ul style="list-style-type: none"> • Name coins and notes and understand their value • Represent the same value using different coins • Find change 		<ul style="list-style-type: none"> • Share equally into groups • Doubling • Link halving to fractions • Add equal groups • Explore arrays 		<ul style="list-style-type: none"> • Compare capacities, volumes and lengths • Explore litres • Apply understanding of fractions to capacity 	



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Year 2 Curriculum Map

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Numbers within 100		Addition and subtraction of 2-digit numbers		Addition and subtraction word problems		Measures: Length		Graphs	Multiplication and division: 2, 5, and 10		
	<ul style="list-style-type: none"> • Read, write, represent, partition, compare and order numbers to 100 • Explore patterns including, odds and evens, tens and ones 		<ul style="list-style-type: none"> • Apply number bonds to add and subtract • Represent and explain addition and subtraction of two 2-digit numbers. • Add three 1-digit numbers 		<ul style="list-style-type: none"> • Introduction to bar models as a representation • Create, label and sketch bar models 		<ul style="list-style-type: none"> • Draw and measure lengths in centimetres • Use <, > and = to compare and order lengths in metres and centimetres 		<ul style="list-style-type: none"> • Represent and interpret: pictograms, block diagrams, tables and tally charts. 	<ul style="list-style-type: none"> • Calculate the times tables of 2, 5, and 10 by skip counting • Relate the 2 times table to doubling • Explore representations of multiplication and division • Commutativity 		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Spring	Time		Fractions		Addition and subtraction of 2-digit numbers		Money		Face, shapes and patterns; lines and turns		
	<ul style="list-style-type: none"> • Tell the time on an analogue clock: quarter past, quarter to and five minute intervals • Calculate durations of time in minutes and seconds • Sequence daily events • Minutes in an hour and hours in a day 		<ul style="list-style-type: none"> • Part-whole relationships • Fractions as part of a whole or a whole set • Relate to division • Equivalent fractions 		<ul style="list-style-type: none"> • Illustrate, represent and explain addition and subtraction involving regrouping including 'Make Ten', 'Round and adjust' and near doubles strategies 		<ul style="list-style-type: none"> • Recognise coins and notes • Use £ and p accurately • Add and subtract amounts • Calculate change 		<ul style="list-style-type: none"> • Explore, sort and describe 2-D shapes • Lines of symmetry in 2-D shapes • Identify 2-D shapes on 3-D shapes • Compare and sort 2-D and 3-D shapes • Use language to describe position, direction and rotation to follow a route 		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Summer	Numbers within 1000	Measures: Capacity and volume		Measures: Mass	Exploring calculation strategies		Multiplication and division: 3 and 4		
	<ul style="list-style-type: none"> • Represent in different ways • Compare using symbols • Read scales 	<ul style="list-style-type: none"> • Read and measure temperature • Estimate, measure and understand litres and millilitres • Compare and order capacities 		<ul style="list-style-type: none"> • Weigh and compare masses in kilograms and grams 	<ul style="list-style-type: none"> • Apply addition and subtraction strategies to solve equations • Illustrate and explain addition and subtraction using column method 		<ul style="list-style-type: none"> • Multiplication and division facts for 3 and 4 • Relate 4 times table to doubling the 2 times tables • Describe, interpret and represent using arrays and bar models • Recognise inverse relationship 		



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Year 3 Curriculum Map

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Autumn	Number sense and exploring calculation strategies			Place value		Graphs	Addition and subtraction			Length and perimeter	
	<ul style="list-style-type: none"> • Read, write, order and compare numbers to 100 • Calculate mentally using known facts, round and adjust, near doubles, adding on to find the difference • Derive new facts from a known fact 			<ul style="list-style-type: none"> • Read, write, represent, partition, order and compare 3-digit numbers • Find 10 and 100 more or less • Round to the nearest multiple of 10 and 100 		<ul style="list-style-type: none"> • Collect, interpret and present data using charts and tables 	<ul style="list-style-type: none"> • Develop and use a range of mental calculation strategies • Illustrate and explain formal written methods – column method 			<ul style="list-style-type: none"> • Measure, draw and compare lengths • Add and subtract lengths • Calculate perimeter 	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Spring	Multiplication and division		Deriving multiplication and division facts			Time		Fractions		
	<ul style="list-style-type: none"> • Multiplication and division facts for 2, 3, 4, 5, 6, 8 and 10 • Multiplicative structures: equal groups/parts, change and comparison, correspondence problems • Relationships: commutativity and inverse 		<ul style="list-style-type: none"> • Multiply and divide by 10 and 100 • Multiply a 2-digit number by 2, 3, 4, 5 and corresponding division situations • Divide 2-digit by a 1-digit 			<ul style="list-style-type: none"> • Tell, record, write and order the time analogue and digital • 12-hour, a.m., p.m. • Measure, calculate and compare durations 		<ul style="list-style-type: none"> • Part-whole relationships • Fractions as part of a whole or a whole set and as a number • Add, subtract, compare and order fractions 		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Summer	Angles and shape			Measures			Securing multiplication and division	Exploring calculation strategies and place value	
	<ul style="list-style-type: none"> • Identify angles including right angles and recognise as a quarter of a turn • Identify and draw parallel and perpendicular lines • Draw/make, classify and compare 2-D and 3-D shapes • Measure the perimeter 			<ul style="list-style-type: none"> • Read scales with different intervals when measuring mass and volume • Weigh and compare masses and capacities with mixed units • Estimate mass and capacity 			<ul style="list-style-type: none"> • Recall and use multiplication and division facts for 6 and 8 times table 	<ul style="list-style-type: none"> • Add and subtract mentally • Find 10, 100 and 1000 more or less • Order and compare beyond 1000 • Round numbers 	



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Year 4 Curriculum Map

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Autumn	Reasoning with large numbers		Addition and subtraction			Multiplication and division			Discrete and continuous data	
	<ul style="list-style-type: none"> • 4-digit place value. Read, write, represent, order and compare • Find 10, 100 or 1000 more or less • Round numbers to the nearest 10, 100 or 1000 	<ul style="list-style-type: none"> • Select appropriate strategies to add and subtract • Illustrate and explain appropriate addition and subtraction strategies including column method with regrouping 	<ul style="list-style-type: none"> • Distributive property including multiplying three 1-digit numbers • Mental multiplication and division strategies using place value and known and derived facts • Short multiplication and division 	<ul style="list-style-type: none"> • Read, interpret and construct pictograms, bar charts and time graphs • Compare tables, pictograms and bar charts 						

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Spring	Securing multiplication facts		Fractions			Time	Decimals			Area and perimeter	
	<ul style="list-style-type: none"> • Identify and explore patterns in multiplication tables including 7 and 9 	<ul style="list-style-type: none"> • Explore different interpretations and representations of fractions • Equivalent fractions • Represent fractions greater than one as mixed number and improper fractions • Add and subtract fractions with the same denominator including fractions greater than one 	<ul style="list-style-type: none"> • Analogue to digital, 12-hour and 24-hour • Convert between units of time 	<ul style="list-style-type: none"> • Decimal equivalents to tenths, quarters and halves • Compare and order numbers with same number of decimal places • Multiply and divide by 10 and 100 including decimals 	<ul style="list-style-type: none"> • Perimeter of rectangles and rectilinear figures • Area of rectangles and rectilinear and compare • Investigate area and perimeter 						

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Summer	Solving measures and money problems			Shape and symmetry			Position and direction	Reasoning with pattern and sequences		3-D shape
	<ul style="list-style-type: none"> • Convert units of measure • Select appropriate units to measure • Use strategies to investigate problems: trial and improvement, organising using lists and tables, working systematically 	<ul style="list-style-type: none"> • Classify, compare and order angles • Compare and classify 2-D shapes • Identify lines of symmetry 	<ul style="list-style-type: none"> • Describe and plot using coordinates • Describe translations 	<ul style="list-style-type: none"> • Roman numerals up to 100 • Place value of other number systems • Number sequences and patterns 	<ul style="list-style-type: none"> • Use understanding of 3-D shapes • Identify 3-D shapes from 2-D representations 					



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Year 5 Curriculum Map

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Autumn	Reasoning with large whole integers		Integer addition and subtraction		Line graphs and timetables		Multiplication and division			Perimeter and area
	<ul style="list-style-type: none"> • Read, write, order and compare numbers up to one million • Round numbers within one million to the nearest multiple of powers of ten • Read Roman numerals up to M 		<ul style="list-style-type: none"> • Use rounding to estimate • Use a range of mental calculation strategies to add and subtract integers • Illustrate and explain the written method of column addition and subtraction • Select efficient calculation strategies 		<ul style="list-style-type: none"> • Complete, read and interpret data presented in line graphs • Read and interpret timetables including calculating intervals 		<ul style="list-style-type: none"> • Identify multiples and factors • Investigate prime numbers • Multiply and divide by 10, 100 and 1000 (integers) • Derived facts • Illustrate and explain formal multiplication and division strategies such as short and long • Use a range of mental calculation strategies 			<ul style="list-style-type: none"> • Investigate area and perimeter of rectilinear shapes • Estimate area of non-rectilinear shapes

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Spring	Fractions and decimals			Angles		Fractions and percentages			Transformations	
	<ul style="list-style-type: none"> • Read, write, order and compare decimals • Round decimals to the nearest whole number • Represent, identify, name, write, order and compare fractions (including improper and mixed numbers) • Calculate fractions of amounts 			<ul style="list-style-type: none"> • Classify, compare and order angles • Measure and draw angles with a protractor • Understand and use angle facts to calculate missing angles 		<ul style="list-style-type: none"> • Add, subtract fractions with denominators that are multiples of the same number • Multiply fractions (and mixed numbers) by a whole number • Explore percentage, decimal, fractions equivalence 			<ul style="list-style-type: none"> • Coordinates in all four quadrants • Translation and reflection • Calculate intervals across zero as a context for negative numbers 	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Summer	Converting units of measure		Calculating with whole numbers and decimals			2-D and 3-D shape		Volume	Problem solving	
	<ul style="list-style-type: none"> • Convert between metric units of length, mass and capacity and units of time • Know and use approximate conversion between imperial and metric 		<ul style="list-style-type: none"> • Mental strategies to add and subtract involving decimals • Formal written strategies to add, subtract and multiply involving decimals • Multiply and divide by 10, 100 and 1000 involving decimals • Derive multiplication facts involving decimals 			<ul style="list-style-type: none"> • Classify 2-D shapes and reason about regular and irregular polygons • Properties of diagonals of quadrilaterals • Classify 3-D shapes • 2-D representations of 3-D shapes. 		<ul style="list-style-type: none"> • Use cube numbers and notation • Estimate volume • Convert units of volume 	<ul style="list-style-type: none"> • Negative numbers and calculating intervals across zero • Calculating the mean • Interpret remainders • Investigate numbers: consecutive, palindromic, multiples 	



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Year 6 Curriculum Map

The first two units need to be taught before any other units as these cover place value and the four operations and ensure firm foundations for the rest of the learning. The remaining units can be taught in any order with the following caveats:

- The first five lessons of the first Fractions unit should be taught prior to learning on calculating with fractions.
- The Proportion problems unit should only be taught after the units on fractions, decimals and percentages.

1) Integers and decimals (10 lessons)	2) Multiplication and division (15 lessons)	3) Calculation problems (10 lessons)	4) Fractions (10 lessons)	5) Missing angles and length (5 lessons)
<ul style="list-style-type: none"> • Represent, read, write, order and compare numbers up to ten million • Round numbers, make estimates and use this to solve problems in context • Solve multi-step problems involving addition and subtraction 	<ul style="list-style-type: none"> • Identify and use properties of number, focusing on primes • Multiply larger integers and decimal numbers using a range of strategies • Divide integers by 1-digit and 2-digit numbers representing remainders appropriately • Illustrate and explain formal multiplication and division strategies 	<ul style="list-style-type: none"> • Understand the use of brackets • Use knowledge of the order of operations to carry out calculations • Generate and describe linear number sequences • Express missing number problems algebraically • Solve equations with unknown values 	<ul style="list-style-type: none"> • Deepen understanding of equivalence • Order, simplify and compare fractions, including those greater than one • Recall equivalence between common fractions and decimals • Find decimal quotients using short division • Add and subtract fractions 	<ul style="list-style-type: none"> • Compare and classify a range of geometric shapes • Use angle facts to find unknown angles

6) Coordinates and shapes (10 lessons)	7) Fractions (5 lessons)	8) Decimals and measure (15 lessons)	9) Percentage and statistics (10 lessons)	10) Proportion problems (10 lessons)
<ul style="list-style-type: none"> • Draw a range of geometric shapes using given dimensions and angles • Describe, draw, translate and reflect shapes on a co-ordinate plane • Recognise and construct 3-D shapes • Name and illustrate parts of a circle 	<ul style="list-style-type: none"> • Represent multiplication involving fractions • Multiply two proper fractions • Divide a fraction by an integer 	<ul style="list-style-type: none"> • Use, read, write and convert between standard units of measures; length, mass, time, money and volume as well as imperial units • Calculate the area of parallelograms and triangles • Calculate, estimate and compare the volume of cuboids 	<ul style="list-style-type: none"> • Calculate and compare percentages of amounts • Connect percentages with fractions • Explore the equivalence of fractions, decimals and percentages • Calculate the mean • Construct and interpret lines graphs and pie charts • Compare pie charts 	<ul style="list-style-type: none"> • Use fractions to express proportion • Identify ratio as a relationship between quantities and as a scale factor • Unequal sharing involving ratio



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