



Whole School Maths Progression Map

This progression map shows the concepts and small steps taught to pupils from EYFS to Year 6. Maths is mapped across each term and concepts revisited incorporating a spiral approach this is to ensure we broaden and deepen pupils' mathematical knowledge and they have the chance to use and apply new knowledge to a range of tasks including reasoning and problem solving. In brackets, after the concept, is the small steps taught for remembering and mastering.

The progression for Years 1 to 6 is taken from the new Deepening Understanding Scheme of Work; however, teachers use a range of resources and activities to ensure quality first teaching and understanding of the small step. The mathematical concepts are shown in bold, followed by the small steps progression for the lesson sequence in italics, combining both remembering and mastering. Progression in the EYFS, is developed from the Statutory Framework for the Early Years Foundation Stage and the GAT EYFS Progression document.

It is broken down into the following areas and highlighted as follows.

Number	Geometry	Measure	Statistics	Algebra	Ratio and Proportion
EYFS	EYFS	Year 1	Year 2	Year 6	Year 6
Year 1	Year 1	Year 2	Year 3		
Year 2	Year 2	Year 3	Year 4		
Year 3	Year 3	Year 4	Year 5		
Year 4	Year 4	Year 5	Year 6		
Year 5	Year 5	Year 6			
Year 6	Year 6				

Maths in EYFS

NURSERY	Autumn		Spring		Summer	
Number	Perceptual subitising – recognising values		Subitise objects up to 3 Can physically partition several things into two groups and can recognise these groups can be recombined to make the same total Solve real world maths problems with numbers up to 5		Know that the quantity is the same however it is arranged Can talk about the different numbers within a number Know that a group of things changes in quantities when something is added or taken away	
Numerical Patterns	Say number words in sequence (initially 5, then 10 and then extending to larger numbers) Compare collections and begin to talk about which group has more Explore numbers with concrete objects – grouping and sharing		Count using 1:1 correspondence Identify groups with the same number of things Understand fair and unfair when objects are shared between them		Know that the last number tells you how many are in the set Use vocabulary more, less, fewer and same to compare quantities Understand equal parts and whole of shapes	
Shape, Space, Measure	Recognising attributes (the stick is long) Develop spatial awareness: experiencing different viewpoints	With teacher support compares some types of measures Talk about and copy patterns around them	Copy and continue an ABAB pattern Develop spatial vocabulary to describe position and direction	Shows awareness of comparison in estimating and predicting Explores shapes and the attributes of shapes through play	Create own ABAB patterns Explores shapes and the attributes of shapes through play	Compare some types of measures Notice and correct an error in an ABAB pattern Begin to show awareness of the properties of shapes, identifying similarities. Use informal and mathematical language to describe them.

RECEPTION	Autumn		Spring		Summer	
Number	Counting Recognising quantities (Subitise perceptually to 5). Comparing quantities. Ordering numbers. Exploring natural objects and quantities inside and outside at each stage.	Counting. Recognising numbers 1-5/ 10. (Subitise conceptually from 5) One more/ fewer up to 5/ 10. Comparing quantities. Identifying 1 more/ 1 less of numbers to 10. Ordering numbers.	Conceptual subitising – (part/ whole) Recognising numbers to 20. 1 more/1 less. Practical addition and subtraction with numbers to 10. Number bonds to 5. Ordering numbers. (Subitise to 10 using a range of concept images). Unitising.	Part whole. Doubling, halving and sharing. Addition and subtraction. (Subitise to 10)	Addition and subtraction. Number bonds to 10 re-cap. Counting in 2's, 5's and 10's. Estimation. Consolidate before Year One.	
Shape, Space, Measure, Pattern Not represented as ELG	2D/ 3D shapes and properties. Combine shapes to create new ones. Repeating patterns. Times of the day and language : morning, lunchtime, afternoon, evening, night, day, before, after, first, last, yesterday, tomorrow		Repeating patterns. Relationships between shapes, compose, decompose, shapes within shapes. Measurement including non-standardised units of measure. Compare objects and people by length, height. Capacity/ weight.	Record patterns Use of spatial reasoning to create and solve problems. Introduction to Time and money. (Pirate Treasure) Order objects and people by length, height Capacity/ weight.	Secure previous knowledge through application before Year one. Address any gaps and consolidating language to ensure children are secure in their knowledge and skills.	

Maths in KSI

<p>Year 1</p>	<p>Place Value to 10 (Remembering Sorting, Counting, Representing, Counting Forwards, Counting Backwards, Reading and Writing Numbers, One More/One Less, Correspondence, Patterns, Mastering the Number Line to 10, Remembering Comparing Objects to 10, Mastering Comparing, Using a Number Line, Ordering Objects, Ordering Numbers, Ordinal Numbers) Time (Mastering Before and After, Days and months) Counting (Remembering Counting to 20) Place Value to 20 (Mastering Writing Numbers, Representing Numbers, One More, One Less, Mastering 10, Tens and Ones, Number Line, Comparing Objects, Comparing Numbers, Ordering Objects, Ordering Numbers) Counting (Recall Counting in 2s, Counting in Multiples of 2 from 1) Measure (Mastering Comparing Lengths, Comparing Heights, Measuring Length with non-Standard Units, Length with Standard Units, Measuring Time, Comparing Time)</p>	<p>Place Value (Remembering Bonds to 5, Mastering Fact Families to 5, Mastering Bonds to 6, Bonds to 7, Bonds to 8, Bonds to 9, Bonds to 10, Bonds within 10) Addition and Subtraction (Mastering Doubling Numbers to 10, Near Doubles, Doubling Lengths, Addition and Equals Symbols, Comparing Number Bonds, Adding by Counting All to 10, Adding by Making 10, Finding a Part, Subtraction by Crossing Out to 10, Subtraction Symbol, Partitioning, Counting Back, Finding the Difference, Fact Families, Reordering for Efficiency) Place Value (Mastering Bonds to 20) Addition and Subtraction (Mastering Adding by Counting On to 20, Adding 10 to a 1 Digit Number, Subtraction by Crossing Out to 20, Subtracting 10 from Numbers 11-20, Related Facts) Counting (Mastering Counting in 5s, 10s, 100 and Beyond) Place Value to 100 (Mastering Representing Numbers to 100, Mastering One More/Less, the Number Line to 100, Comparing Numbers to 100 with Pictorial Representations, Ordering Numbers to 100)</p>	<p>Measure (Mastering Introducing Mass and Weight, Measuring Mass with Non-Standard Units, Comparing Mass with Non-Standard Units, Measuring Mass with Standard Units, Comparing Mass with Standard Units, Mastering the Introduction of Capacity and Volume, Measuring Capacity with Language, Measuring Capacity by Reading Scales) Money (Mastering Recognising Coins, Mastering Recognising Notes, Mastering Counting Coins) Multiplication (Mastering Making Equal Groups, Counting Equal Groups, Making Equal Groups by Grouping, Making Equal Groups by Sharing, Making Arrays) Fractions (Mastering Halving Even Numbers to 20, Recognising a Half of Shapes and Objects, Finding a Half of Shapes and Objects, Recognising a Quarter of Shapes and Objects, Finding a Quarter of Shapes and Objects) Measure (Mastering Comparing Capacity) Time (Mastering Time to the Hour, Half an Hour, Writing Time, Comparing Time) Position and Direction (Mastering Describing Turns) Fractions (Mastering Finding Half of Quantities) Position and Direction (Mastering Describing Direction, Describing Position) Shape (Mastering Recognising and Naming 2D Shapes)</p>
<p>Year 2</p>	<p>Place Value to 100 (Mastering Reading and Writing Numbers to and across 100, Mastering 10s, Tens and Ones with Standard and Non-Standard Partitioning, Number line to 100, Comparing Objects and Numbers, Ordering Numbers) Measure-Reading Scales (Measuring Lengths in Centimetres and Metres, Comparing and Ordering Lengths, Measuring Mass in Grams and Kilograms, Comparing and Ordering Mass, Measuring Capacity in Millilitres and Litres, Comparing and Ordering Volume, Measuring and Comparing Temperature) Counting (Remembering Counting in 2s, 5s and 10s, Counting in 10s from Any Number, Mastering Counting in 3s) Statistics (Interpreting and Drawing Pictograms) Mental Maths (Mastering Bonds to 20 and Related Facts) Addition (Using the Inverse, 2 More and 3 More, Mastering Adding 2-Digits and 1-Digit, Adding 2-Digits and 2-Digits)</p>	<p>Subtraction (Mastering 2 and 3 Less, Mastering Subtracting 2-Digits from 2-Digits, Subtracting 1-Digits from 2-Digits) Money (Mastering Finding the Difference, Finding Change, Two Step Problems) Measure (Mastering Lengths with Addition and Subtraction, Mass with Addition and Subtraction, Capacity with Addition and Subtraction, Temperature with Addition and Subtraction) Statistics (Mastering Interpreting Pictograms with Addition and Subtraction, Interpreting Block Diagrams) Multiplication and Division (Mastering Multiplication Sentences, Using Arrays, Multiplying by 2, 5 and 10, Applying Multiplication, Making Equal Groups by Sharing and Grouping, Dividing by 2, 5 and 10, Applying Division) Fractions (Mastering Making Equal Parts, Lines of Symmetry, Recognising a Half, Third and Quarter of a Shape, Equivalence of 1/2 and 2/4, Recognising Three Quarters of a Shape)</p>	<p>Position and Direction (Mastering Describing Movement, Describing Turns, Describing Movement and Turns) Time (Mastering Reading and Writing Quarter Past, Reading and Writing Quarter to, Telling the Time to 5 minutes, Hours and Days, Measuring and Recording Time, Finding and Comparing Durations of Time, Sequencing Time) Fractions (Mastering Unit and Non-Unit Fractions, Finding a Half, a Third and a Quarter of a Quantity, Finding Three Quarters of a Quantity) Shape (Mastering Counting Sides and Vertices on 2D Shapes, Drawing Lines and 2D Shapes, Sorting 2D Shapes, Making Patterns with 2D Shapes, Counting Faces, Edges and Vertices on 3D Shapes, Sorting 3D Shapes)</p>

Maths in KS2

<p>Year 3</p>	<p>Place Value to 1,000 (Numbers to 100, Reading and Writing Numbers to 1,000, 100s, Place Value of 3-Digit Numbers, 1, 10 and 100 More and Less, Standard and non-standard partitioning to 1,000, Number Line to 1,000, Nearest to / Furthest from, Comparing Number Representations, Ordering Numbers, Roman Numerals to 12) Measure (Telling the Time to 5 Minutes and 1 Minute,) Decimals (Tenths as Decimals on a Number Line/Place Value Grid) Measure (Measuring Lengths and Drawing Lines, Comparing Lengths, Perimeter with Squares, and a Ruler, Measuring Mass including with Mixed Measures, Simple Equivalent Mass, Comparing Mass and Capacity, Measuring Capacity, Measuring and Comparing Temperature, Recognising and Converting Pounds and Pence) Counting (Counting in 10 and 100s from any Number, Counting in 50s, 4s and 8s from 0) Statistics (Tally Charts, Pictograms and Bar Charts Bonds and Fact Families to 1,000)</p>	<p>Addition and Subtraction (Number bonds, Multiples, Crossing and not crossing 10/100 Rounding, 2 digit and 3-digit numbers, Estimating using Fact Families, Partitioning, Estimating Answers. Subtraction with and without exchange, Checking using Inverse Operations) Measure (Adding and Subtracting Lengths, Mass, Capacity and Money, Finding Change, Calculating Perimeter) Statistics (Pictograms, Bar Charts and Tables with Sum and Difference Questions) Fractions (Remembering Unit and Non-Unit, Addition, Subtraction and Making the Whole) Multiplying and Dividing (by 10 including to find tenths, Commutativity and Associativity, Related Facts, Doubling Numbers with Partitioning, Partitioning to Divide, Remembering Equal Groups, by 3, 4 and 8, Scaling)</p>	<p>Multiplication and Division (Problem Solving, Applying Multiplication and Division 3-, 4- and 8-times table and division facts, with and without exchange and remainders) Time (Months and Years, Days and Hours, Minutes and Seconds, Comparing Time) Fractions (Halving and Quartering, Using Multiplication to Find Fractions, Unit Fractions of Quantities, Non-Unit Fractions of Shapes, Objects and Quantities, Equivalent Fractions (pictorial, fraction wall, bar models and number lines), Comparing and Ordering Unit and Non-Unit Fractions) Time (AM and PM, 24 Hour Clock, Duration, Start and End Times) Shape and Angles (Recognising Angles as Turns, Right-Angles, Acute and Obtuse Angles, Comparing Angles, Horizontal, Vertical, Parallel and Perpendicular Lines, Symmetry in Shapes, Properties of 2D and 3D Shapes, Drawing 2D Shapes, Constructing 3D Shapes)</p>
<p>Year 4</p>	<p>Place Value to 10,000 (Mastering Reading and Writing Number to 10,000, Place Value Standard and Non-Standard Partitioning, Nearest and Furthest, Rounding, Comparing and Ordering, Roman Numerals) Measure (Length, Perimeter of Rectilinear Shapes, Estimating, Comparing Mass, Comparing Capacity, Temperature) Decimals (Tenths and hundredths, Reading and writing numbers to 2DP, Rounding to the nearest whole number) Money (Mastering Decimal Notation, Comparing and Ordering) Counting (Negative Numbers, Counting in 6s, 7s, 9s, 25s, 100s, 1000s) Statistics (Bar Charts, Pictograms, Time Charts) Addition (Mastering Number Bonds, Calculation Efficiency, Adding 4-digit Numbers and 1-digit – Crossing 10s up to Adding 4-digit Numbers and 1000s with Exchanging) Measure (Adding Length, Mass, Capacity, Money)</p>	<p>Statistics (Mastering Sum and Difference Questions) Fractions (Making the Whole, Fractions Greater than 1, Adding and Subtracting Fractions) Subtracting (Mastering Number Bonds, Calculation Efficiency, Subtracting 4-digit Numbers and 1-digit – crossing 10s up to Subtracting 4-digit numbers and 1000s with exchanging) Measure (Subtracting Length, Mass, Capacity, Money) Multiplication and Division (Doubling Numbers, Multiplying 3 Numbers, Deriving Facts from Known Facts, Multiplying by 10 and 100, Multiplying and Dividing by 6, 7, 9, 11 and 12, Multiplying 2-digit numbers by 1-digit, Multiplying and Dividing 3-digit numbers by 1-digit) Area (Counting Squares, Comparing) Money (Estimating and Comparing)</p>	<p>Time (Years, Months, Weeks, Hours, Minutes, Seconds) Fractions (Counting, Fractions of a Quantity, Equivalence, Simplifying) Fractions as decimals (Tenths as Fractions, Decimal Number Bonds, Hundredths as Fractions) Shape and Angles (Identifying Angles, Comparing and Classifying Polygons, Triangles, Quadrilaterals, Lines of Symmetry) Position and Direction (Describing Positions on a Grid, Completing Polygons with Co-ordinates, Mastering and Describing Movement on a Grid) Time (Mastering analogue to digital, 24 Hours, Calculating durations)</p>
<p>Year 5</p>	<p>Place Value to 1,000,000 (Mastering Reading and Writing Number to 1,000,00, Place Value Standard and Non-Standard Partitioning, Nearest and Furthest, Rounding, Comparing and Ordering inc Negative Numbers, Roman Numerals to 1,000) Decimals (Reading, Writing, Partitioning, Rounding, Comparing, Ordering) Counting (Through Zero, Powers of 10, Multiples of 12, Decimals and Fractions) Measure (Comparing and Ordering Measures) Angles (Comparing, Ordering and Measuring Angles) Fractions (Equivalent, Improper, Mixed, Comparing, Ordering, Less and Greater than One) Statistics (Bar Charts, Pictograms, Line Graphs)</p>	<p>Addition and Subtraction (Fact Families, Adding and Subtracting Multiples, Rounding to Estimate, Column Addition and Subtraction, Inverse Operations and Multistep Problems) Adding and Subtracting Decimals (Compliments to One, Adding and Subtracting Tenths, Adding Decimals within 1 and Crossing the Whole) Money (Problem Solving) Time (Converting Units, Interpreting Timetables) Perimeter (Measuring and Calculating of Rectilinear Shapes) Angles (On a Straight Line, Around a Point and in Shapes) Fractions (Converting, Simplifying, Adding and Subtracting Mixed and Improper Fractions Across and Within One) Shape (Regular and Irregular Polygons, Nets.)</p>	<p>Multiplication and Division (Whole Numbers and Decimals by 10,100 and 1000). Measure (Converting Length, Capacity and Mass, Imperial Units and Scaling Measures) Multiplication and Division (Long and Short Multiplication up to 4 digits by 2 digits, Dividing 4 digits by 1 digit including Remainders as Decimals and Fractions) Area (Area of Rectangles, Compound Shapes and Irregular Shapes) Fractions, Decimals and Percentages (Multiplying Unit and Non-Unit Fractions by an Integer, Understanding Percentages, Decimals and Fractions as Equivalences) Position and Direction (Translation and Reflection with Coordinates)</p>

<p>Year 6</p>	<p>Place Value to 10,000,000 (Mastering Reading and Writing Number to 10,000,00, Place Value Standard and Non-Standard Partitioning, Nearest and Furthest, Rounding, Comparing and Ordering inc Negative Numbers)</p> <p>Decimals (Sequences, Rounding, Comparing and Ordering)</p> <p>Fractions (Comparing and Ordering)</p> <p>Counting (Powers of 10 from any number, Decimals and Fractions)</p> <p>Statistics (Mastering Line Graphs and Conversion)</p> <p>Adding and Subtracting Integers (Mastering Adding and Subtracting Multiples, Rounding and Adjusting, Column Addition and Subtraction)</p> <p>Angles (Mastering Angles in Triangles and Quadrilaterals)</p> <p>Adding and Subtracting Decimals (Complements to One, Adding and Subtracting Tenths and One Digit Whole Numbers)</p>	<p>Measure (Calculating Metric Measure and Perimeter)</p> <p>Fractions (Application Adding and Subtracting Common and No Common Multiples, Mastering Adding and Subtracting Mixed Numbers)</p> <p>Multiplication and Division (Mastering Powers of 10)</p> <p>Measure (Mastering Converting Metric Measures)</p> <p>Multiplication (Mastering Known Facts)</p> <p>Measure (Application Mastering Converting Imperial Measure, Miles and Kilometres)</p> <p>Multiplication (Common Factors and Multiples)</p> <p>Measure (Mastering Volume of Cubes/Cuboids)</p> <p>Algebra (Mastering Order of Operations, Finding Rules, Forming Expressions and Equations)</p> <p>Shape (Mastering Shape with the Same Area/Perimeter, Area of Triangle and Parallelograms)</p> <p>Multiplication and Division (Arithmetic, Mastering Short and Long Division)</p> <p>Multiplication and Division (Decimals)</p>	<p>Measure (Calculating Perimeter)</p> <p>Fractions (Mastering Multiplying and Dividing, Equivalence and Converting FDP)</p> <p>Statistics (Mastering Mean, Reading and Interpreting Pie Charts)</p> <p>Ratio and Proportion (Ratio Language and Scale)</p> <p>Angles (Angles in Polygons, Opposite Angles, Isosceles Triangles)</p> <p>Shape (Mastering Circles, Drawing Accurately and Mastering Nets of 3D Shapes)</p> <p>Position and Direction (Quadrants, Translations and Reflections)</p>
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