

	Reception	Year 1	Year 2	Year 3
Place Value: Counting	Subitise to 5 (ELG – N) Verbally count beyond 20, recognising the pattern of the counting system. (ELG – NP)	Count to and across 100, forwards and backwards, beginning with 0 or 1, from any given number. Count numbers to 100 in numerals; count in multiples of 2s, 5s and 10s. <i>Aut 1; Aut 4; Spr 2; Spr 4</i>	Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward. <i>Aut 1</i>	Count from 0 in multiples of 4, 8, 50 and 100. Find 10 or 100 more or less than a given number.
Place Value: Representing	Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally. (ELG – NP) Read numbers to 20 (to 10 confidently. 11-20 may be with some support).	Identify and represent numbers using objects and pictorial representations. Read and write numbers to 100 in numerals. Read and write numbers from 1 to 20 in numerals and words. <i>Aut 1; Aut 4; Spr 2; Spr 4</i>	Read and write numbers to at least 100 in numerals and in words. Identify, represent and estimate numbers using different representations, including the number line. <i>Aut 1</i>	Identify, represent and estimate numbers using different representations. Read and write numbers up to 1000 in numerals and in words.
Place Value: Use PV and Compare	Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity. (ELG – NP) Order numbers to at least 10. Find / say 1 more or less than a number to 10.	Given a number, identify one more and one less <i>Aut 1; Aut 4; Spr 2; Spr 4</i>	Recognise the place value of each digit in a two-digit number (tens, ones). Compare and order numbers from 0 up to 100. Use <, ? and = signs <i>Aut 1</i>	Recognise the place value of each digit in a three-digit number (hundreds, tens, ones). Compare and order numbers up to 1000.
Place Value: Problems and Rounding			Use place value and number facts to solve problems. <i>Aut 1</i>	Solve number problems and practical problems involving these ideas.
Addition and Subtraction: Recall, Represent, Use	Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. (ELG – N) Partition (and combine) amounts to 10, and know that the whole number can be made up of smaller parts.	Read, write and interpret mathematical statements involving addition +, subtraction -, and equals = signs. Represent and use number bonds and related subtraction facts within 20. <i>Aut 2; Spr 1</i>	Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts to 100. Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. <i>Aut 2</i>	Estimate the answer to a calculation and use inverse operations to check answers.

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Addition and Subtraction: Calculating	Find the total of two groups of objects by counting all of them. Add and subtract single digit numbers using concrete resources. Begin to use jottings to work out some simple addition and subtraction	Add and subtract one-digit and two-digit numbers to 20, including zero. <i>Aut 2; Spr 1</i>	Add and subtract numbers concrete objects, pictorial representations, and mentally including: ➤ A two-digit number and ones ➤ A two-digit number and tens ➤ Two two-digit numbers ➤ Adding three one-digit numbers <i>Aut 2</i>	Add and subtract numbers mentally, including: ➤ A three-digit number and ones ➤ A three-digit number and tens ➤ A three-digit number and hundreds Add and subtract numbers up to three digits, using formal written methods of columnar addition and subtraction.
Addition and Subtraction: Solve Problems	As above, using different contexts, e.g. verbal word problems / spot my mistake / prove it etc.	Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$ <i>Aut 2; Spr 1</i>	Solve problems with addition and subtraction: ➤ using concrete, pictorial and abstract representations including those involving numbers, quantities and measures. ➤ applying their increased knowledge of mental and written methods. <i>Aut 2</i>	Estimate the answer to a calculation and use inverse operations to check answers. Solve problems, include missing number problems, using number facts, place value, and more complex addition and subtraction.
Multiplication and Division: Recall, Represent, Use			Recall and use multiplication and division facts for the 2, 5 and 10 times multiplication tables, including recognising odd and even numbers. Show that multiplication of 2 numbers can be done in any order (commutative) and division of one number by another cannot. <i>Aut 4; Spr 1</i>	Recall and use multiplications and division facts for the 3,4 and 8 multiplication tables.
Multiplication and Division: Calculations			Calculate mathematical statements for multiplication and division within the multiplication tables the multiplication (x) division (÷) and equals (=) signs. <i>Aut 4; Spr 1</i>	Write and calculate mathematical statements for multiplication and division using multiplication tables they know, including 2 digits numbers times 1 digit numbers, using mental methods and progressing to formal written methods.
Multiplication and Division: Solve Problems	Share out a given number of objects equally, e.g. <i>share out 6 pieces of fruit between 2 teddies.</i>	Solve one step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. <i>Sum 1</i>	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. <i>Aut 4; Spr 1</i>	Solve problems, including missing numbers, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

	Reception	Year 1	Year 2	Year 3
Fractions: Recognise and Write	Hear and use related vocabulary when role playing / accessing continuous provision or snack etc, e.g. <i>let's have half each</i> .	Recognise, find and name a half as one of two equal part of an object, shape or quantity. Recognise, find and name a quarter as one of equal parts of an objects, shape or quantity. <i>Sum 2</i>	Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ of a length, shape, set of objects or quantity. <i>Spr 4</i>	Count up and down in tenths. Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10. Recognise, find and write of a discrete set of objects; unit fractions and non-unit fractions with small denominators. Recognise and use fractions as numbers: unit fractions and non- unit fractions with small denominators.
Fractions: Compare			Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$. <i>Spr 4</i>	Recognise and show, using diagrams equivalent fractions with small denominators. Compare and order unit fractions and fractions with the same denominators.
Fractions: Calculations			Write simple fractions, e.g. $\frac{1}{2}$ of $6 = 3$ <i>Spr 4</i>	Add and subtract fractions with the same denominator within one whole, e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$
Algebra (Note – although algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the 'missing number' objectives from Y1/2/3.		<i>Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$</i> <i>Aut 2; Spr 1</i>	<i>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</i>	<i>Solve problems including missing number problems.</i>
Measurement: Using Measures	Compare objects by weight (<i>Dev Matters – YR</i>) Compare length and height (<i>Dev Matters – YR</i>) Use language to describe and compare objects when measuring by weight, length, height and capacity. (<i>Dev Matters – YR</i>)	Compare, describe and solve practical problems for : ➤ Length and height, e.g. long/short, longer shorter, tall/short ➤ Mass/Weight, e.g. heavy/light, heavier than/lighter than. ➤ Capacity and volume, e.g. full/empty, more than, less than, half, half-full, quarter ➤ Time, e.g. quicker, slower, earlier, later. Measure and begin to record length and height; weight/ mass, capacity and volume; time (hours, minutes, seconds). <i>Spr 3; Spr 4; Sum 6.</i>	Choose and use appropriate standard units to estimate and measure length/height (m/cm); mass (kg/g); temperature (°C) ; capacity (litres/ ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. Compare and order lengths, mass, volume/ capacity and record the results using >, < and = <i>Spr 5; Sum 4</i>	Measure, compare, add and subtract: length (m/cm/mm); mass (kg/g); volume/ capacity (l/ml)

	Reception	Year 1	Year 2	Year 3
Measurement: Money	Recognise 1p coins and begin to recognise the value of some other coins, e.g. 2p, 5p, 10p. Use pennies when role playing and count out a given amount of pennies to pay for something.	Recognise and know the value of different denominations of coins and notes. <i>Sum 5</i>	Recognise and use the signs for pounds (£) and pence (p); combine amounts to make a particular value. Find different combinations of coins that equal the same amounts of money. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. <i>Aut 3</i>	Add and subtract amounts of money to give change, using both £ and p in practical context.
Measurement: Time	Talk about their day and use vocabulary to describe the order of key events, e.g. first, then, next. Know the days of the week and able to say what day it will be tomorrow etc.	Sequence events in chronological order using language e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening. Recognise and use relating to dates, including days of the week, weeks, months and years. Tell the time to the hour and half past the hour and draw the hands on a clock to show these times. <i>Sum 6</i>	Compare and sequence intervals of time. Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. Know the number of minutes in an hour and the number of hours in a day. <i>Sum 3</i>	Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24- hour clocks Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon; noon and midnight Know the number of seconds in a minute and the number of days in each month, year and leap year. Compare durations of events for example to calculate the time taken by particular events and tasks.
Geometry: 2-D shapes	Select, rotate and manipulate shapes to develop spatial reasoning skills (<i>Dev Matters – YR</i>) Compose and decompose shapes so that children recognise a shape can have shapes <i>within</i> it, just as numbers can. (<i>Dev Matters – YR</i>)	Recognise and name common 2-D shapes, e.g. rectangles, circles and triangles. <i>Aut 3</i>	Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line. Identify 2D shapes on the surface of 3D shapes, e.g. a circle on a cylinder Compare and sort common 2D shapes and 3D shapes and everyday objects <i>Spr 3</i>	Draw 2-D shapes.
Geometry: 3-D shapes	Explore 3D shapes and use them to create models. Use mathematical vocabulary to describe some of their properties, e.g. faces.	Recognise and name common 3-D shapes, e.g. cuboids, pyramids, spheres. <i>Aut 3</i>	Recognise and name common 3-D shapes. Compare and sort common 3-D shapes and everyday objects. <i>Spr 3</i>	Make 3D shapes using modelling materials. Recognise 3D shapes in different orientations and describe them.

	Reception	Year 1	Year 2	Year 3
Geometry: Position and Direction	Select, rotate and manipulate shapes to develop spatial reasoning skills (<i>Dev Matters – YR</i>)	Describe position, direction and movement, including whole, half, quarter and three-quarter turns. <i>Sum 3</i>	Order and arrange combinations of mathematical objects in patterns and sequences Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguish between rotation as a turn and in terms of right angles for quarter, half and $\frac{3}{4}$ turns. <i>Spr 3; Sum 1</i>	
Statistics: Present and Interpret	Explore simple pictograms and physical block graphs as part of our everyday curriculum, e.g. <i>voting for book to be read; creating simple pictograms to show our favourite foods etc.</i>		Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. <i>Spr 2</i>	Interpret and present data using bar charts, pictograms and tables.
Statistics: Solve problems	Begin to use the pictograms / block graphs to answer simple questions, e.g. which one has the most?		Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. Ask and answer questions about totalling and comparing categorical data. <i>Spr 2</i>	Solve one-step and two-step questions (for example 'How many more?' and 'How many fewer?') using information presented in scaled bar charts and pictograms and tables.

Most of the statements in Y1, 2 and 3 have been taken directly from 'White Rose Maths National Curriculum Progression' document. Statements have been added to the Reception column which reflect the learning content / outcomes in 'Development Matters / Early Learning Goals 2021', as well as our own school-based Maths long-term-plan for Reception.

This progression table should be used in conjunction with the following documents:

[White Rose Maths National Curriculum Progression Y1-6](#)

[RMI Reception Maths LTP](#)

[RMI Year 1 Maths LTP](#)

[RMI Year 2 Maths LTP](#)

RMI Calculations Policy