Maths Progression – Reception (Links to DM)

Menu	
Counting	- Count objects, actions and sounds. - Count beyond 10. - Verbally count beyond 20, recognising the pattern of the counting system. (ELG)
Place Value	- Compare numbers. - Have a deep understanding of number to 10, including the composition of each number. (ELG) - 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)
Representing number	- Subitise - Subitise up to 5 (ELG) - Link the number symbol (numeral) with its cardinal number value.
Number facts (+/-)	- Understand the 'one more than/one less than' relationship between consecutive numbers. - 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)
Mental +/-	- Automatically recall number bonds for numbers 0–5 and some to 10. - 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)
Written +/-	
Problems +/-	- Explore the composition of numbers to 10. - Have a deep understanding of number to 10, including the composition of each number. (ELG)
Number facts (x/÷)	Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally. (ELG)
Mental (x/÷)	
Written (x/÷)	
Problems (x/÷)	
Recognising fractions	
Comparing fractions	
Finding fractions of quantities	
Fraction calculations	
Decimals as fractional amounts	
Ordering decimals	

| Calculating with decimals | |

Percentages	
Fraction problems	
Ratio & Proportion	
Algebra	
Measures	• Compare length, weight and capacity.
Mensuration	
Money	
Time	
Shape vocabulary	
Properties of 2-d shape	
Properties of 3-d shape	
Angles	
Pattern	• Continue, copy and create repeating patterns.
Position & Direction	• Select, rotate and manipulate shapes to develop spatial reasoning skills. • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.
Interpreting data	
Extract info from data	

Maths Progression – Year 1 (NC links)

Menu	
Counting	• Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given n... • Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
Place Value	
Representing number	• Identify and represent numbers using objects and pictorial representations including the number line, & use language of equal to, more than, less than (fewer), most, least • Read and write numbers from 1 to 20 in numerals and words • Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
Number facts (+/-)	• Given a number, identify one more and one less • Represent and use number bonds and related subtraction facts within 20
Mental +/-	• Add and subtract one-digit and two-digit numbers to 20, including zero
Written +/-	
Problems +/-	• Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ – 9.
Number facts (x/÷)	
Mental (x/÷)	
Written (x/÷)	
Problems (x/÷)	• 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.
Recognising fractions	• Recognise, find and name a half as one of two equal parts of an object, shape or quantity • Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.
Comparing fractions	
Finding fractions of quantities	
Fraction calculations	
Decimals as fractional amounts	
Ordering decimals	

Year 1 – Continued (NC links)

Calculating with decimals	
Percentages	

Fraction problems	
Ratio & Proportion	
Algebra	
Measures	• Compare, describe and solve practical problems for: length/height, weight/mass, capacity/volume & time • Measure and begin to record length/height, weight/mass, capacity/volume & time
Mensuration	
Money	• Recognise and know the value of different denominations of coins and notes
Time	• Sequence events in chronological order using language • Recognise and use language 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 face to show these times
Shape vocabulary	• Recognise and name common 2-D shapes (e.g., Square, circle, triangle) • Recognise and name common 3-D shapes (e.g., Cubes, cuboids, pyramids & spheres)
Properties of 2-d shape	
Properties of 3-d shape	
Angles	
Position & Direction	• Describe position, direction and movement, including whole, half, quarter and three-quarter turns.
Interpreting data	
Extract info from data	

Maths Progression – Year 2 (NC links)

Menu	
Counting	• Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward
Place Value	• Recognise the place value of each digit in a two-digit number • Compare and order numbers from 0 up to 100; use <, > and = signs

Representing number	• Identify, represent and estimate numbers using different representations, including the number li[ne] • Read and write numbers to at least 100 in numerals and in words
Number facts (+/-)	• Use place value and number facts to solve problems • Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
Mental +/-	• Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: TU+U, TU+T, TU+TU and U+U+U • Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
Written +/-	
Problems +/-	• Solve problems with addition and subtraction, using concrete, pictorial and abstract representations • Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
Number facts (x/÷)	• Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
Mental (x/÷)	• Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
Written (x/÷)	
Problems (x/÷)	• Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts
Recognising fractions	• Recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity
Comparing fractions	
Finding fractions of quantities	
Fraction calculations	• Write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2.

Year 2 – Continued (NC links)

Decimals as fractional amounts	
Ordering decimals	

Calculating with decimals	
Percentages	
Fraction problems	
Ratio & Proportion	
Algebra	
Measures	• 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 =
Mensuration	
Money	• Recognise and use symbols 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
Time	• 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
Shape vocabulary	• *(vertices, edges, faces, symmetry)*
Properties of 2-d shape	• Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. • Compare and sort common 2-D and 3-D shapes and everyday objects.
Properties of 3-d shape	• Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces • Identify 2-D shapes on the surface of 3-D shapes. • Compare and sort common 2-D and 3-D shapes and everyday objects.

Angles	
Position & Direction	• 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 distinguishing between rotation as a turn and in terms of right angles for quarter, half and $\frac{3}{4}$ turns
Interpreting data	• Interpret and construct simple pictograms, tally charts, block diagrams and simple tables
Extract info from data	• 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