

Progression of Skills by Topic – Nursery To Year 6

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	Number	Addition and Subtraction
Nursery	Recite numbers to 5 and beyond and count up to 5 objects. Know that the last number said tells you how many objects are in the set. Subitise up to objects. Match representations of up to 3 objects.	Compare quantities to 5 using more than and fewer than. Through number rhymes and real life problems, explore what happens when objects are added or taken away to 5.
Reception	Count forwards and backwards beyond 10, starting with different numbers. Build and identify numbers to 20 and beyond. Place sequences of numbers in order and say what comes next and before. Compare numbers to 10. Subitise to 5.	Recall number bonds to 5 and then 10. Create mathematical stories using first, then now. Add by counting how many objects there are altogether. Find the quantity left in a group when a quantity has been taken away. Add by counting on small numbers - 1,2,3. Represent number stories using ten frames, number tracks and their fingers.
Year 1	Count to 100 (first 0 – 10, then to 20, then to 40 then to 100). Read and write NUMBERS FROM 0 to 100 (first 0 – 10, then to 20, then to 40 then to 100). COMPARE and order NUMBERS FROM 0 to 100 (first 0 – 10, then to 20, then to 40 then to 100). Make different NUMBER bonds for NUMBERS up to 10. Make NUMBER stories COMPLETE NUMBER patterns. Use a place-value chart to show NUMBERS in tens and ones. Find how MUCH MORE. Count in twos, fives and tens to 100. Say a NUMBER that is 1 MORE or 1 less than a 2-digit NUMBER.	Add by counting. Add by counting on. Make addition stories. Write addition equations. Subtract by crossing out. Subtract using NUMBER bonds. Subtract by counting back. Make subtraction stories. Write subtraction equations. Make a FAMILY of addition and subtraction facts. Add by MAKING 10. Add by adding ones. Subtract by subtracting ones. Subtract by subtracting FROM 10. Solve word PROBLEMS involving addition or subtraction.
Year 2	Count to 100. Read and write NUMBERS to 100. COMPARE and arrange NUMBERS within 100. Make and COMPLETE NUMBER patterns.	With two 2 digit numbers and a 2 digit number and tens: Add NUMBERS without RENAMING. Add NUMBERS with RENAMING. Subtract NUMBERS without RENAMING. Subtract NUMBERS with RENAMING. Add three NUMBERS. Draw MODELS for different situations.
Year 3	Count to 1000. Count in hundreds, tens and ones. Count in fifties. Count in fours and eights. Tell the value of a digit in a NUMBER. COMPARE and arrange NUMBERS within 1000. COMPLETE NUMBER patterns.	Using numbers with up to 3 digits: Add NUMBERS without RENAMING. Add NUMBERS with RENAMING. Subtract NUMBERS without RENAMING. Subtract NUMBERS with RENAMING. Solve word PROBLEMS involving addition and subtraction.
Year 4	Count to 10 000. Count in thousands, hundreds, tens and ones. Count in twenty-fives. Count in sixes, sevens and nines. Tell the NUMBER that a digit stands for. COMPARE and arrange NUMBERS within 10 000. Describe and COMPLETE NUMBER patterns. Round NUMBERS and ESTIMATE SUM and difference.	Using numbers with up to 4 digits: Add NUMBERS without RENAMING. Add NUMBERS with RENAMING. Add NUMBERS MENTALLY. Subtract NUMBERS without RENAMING. Subtract NUMBERS with RENAMING. Subtract NUMBERS MENTALLY. Solve word PROBLEMS involving addition and subtraction.
Year 5	Read and write NUMBERS to 1 000 000. Tell the place value of a digit in a NUMBER. COMPARE and arrange NUMBERS within 1 000 000. Count forwards or backwards in steps of 1000, 10 000 and 100 000. Round NUMBERS to the nearest 10, 100, 1000, 10 000 and 100 000.	Add whole NUMBERS with MORE than 4 digits. Add NUMBERS MENTALLY. Subtract whole NUMBERS with MORE than 4 digits. Subtract NUMBERS MENTALLY. Use rounding to check answers. Solve word PROBLEMS involving addition, subtraction, MULTIPLICATION and division, and a COMBINATION of these.
Year 6	Read and write NUMBERS to 10 MILLION. COMPARE and arrange NUMBERS within 10 MILLION. Tell the place value of a digit in a NUMBER. Round NUMBERS to the nearest 10, 100, 1000, 10 000, 100 000 and 1 000 000.	PERFORM MENTAL calculations. Use ESTIMATION to check answers to calculations. Use the order of operations. Solve multi-step PROBLEMS involving addition and subtraction. MULTIPLICATION and division.

	Multiplication and Division	Fractions
Nursery		
Reception	Know that double is twice as many. Begin to recall doubling facts to double 5. Recognise and make equal groups and recognize when groups are not equal- link to odd and even numbers.	
Year 1	Make equal groups. Add equal groups to find the total NUMBER of objects. Group things equally. Share things equally. Solve word PROBLEMS about MULTIPLICATION.	Show a half. Show a quarter. Group/share things to get a half or a quarter. Find a half or a quarter of a group of things.
Year 2	Learn the 2, 5 and 10 TIMES table. Write MULTIPLICATION equations. Divide a NUMBER by 2, 5 and 10. Write MULTIPLICATION and division equations. Write a FAMILY of MULTIPLICATION and division facts. Recognise odd and even NUMBERS. Solve word PROBLEMS using the 2, 5 and 10 TIMES tables. Solve word PROBLEMS involving MULTIPLICATION and division.	Make and show halves, quarters and thirds. NAME and write a fraction. NAME fractions that MAKE one whole. COMPARE and order fractions. Count wholes with halves, quarters and thirds. Find part of a set and a quantity.
Year 3	Do MY 3, 6, 4 and 8 TIMES table. Divide a NUMBER by 3, 6, 4 and 8. Solve word PROBLEMS involving the 3, 4 and 8 TIMES tables. Solve word PROBLEMS involving the division of 3, 4 and 8.	Count in tenths. Make NUMBER pairs that FORM one whole. Add and subtract two fractions. Find and list equivalent fractions. Write a fraction in its SIMPLEST FORM. COMPARE fractions. Find part of a set and fraction of a NUMBER. Share a NUMBER equally. Write fractions on the NUMBER line. Write fractions that are greater than 1. Solve word PROBLEMS involving fractions.
Year 4	Multiply by 7, 9, 11 and 12. Divide by 7, 9, 11 and 12. Divide to find quotient and REMAINDER. Solve word PROBLEMS involving MULTIPLICATION and division. Multiply without regrouping. Multiply with regrouping. Divide without regrouping. Divide with regrouping. Find the quotient and REMAINDER in division. Solve word PROBLEMS involving MULTIPLICATION and division.	Count in hundredths. Write and show MIXED NUMBERS on a NUMBER line. Find equivalent fractions. SIMPLIFY fractions and MIXED NUMBERS. Add and subtract fractions. Solve word PROBLEMS involving fractions.
Year 5	Find MULTIPLES and COMMON MULTIPLES. Find factors and COMMON factors. Identify PRIME and COMPOSITE NUMBERS. Recognise square NUMBERS and cube NUMBERS, and use the notation for squares (e.g. 4 ²) and cubes (e.g. 23 ³). Multiply NUMBERS up to 4 digits by a 1-digit NUMBER. Multiply NUMBERS up to 3 digits by a 2-digit NUMBER. Multiply and divide MENTALLY. Multiply and divide NUMBERS by 10, 100 and 1000. Divide 3-digit and 4-digit NUMBERS. Solve word PROBLEMS involving addition, subtraction, MULTIPLICATION and division, and a COMBINATION of these.	Find equivalent fractions of a given fraction. Recognise MIXED NUMBERS and IMPROPER fractions and convert FROM one FORM to the other. COMPARE and order fractions. Add and subtract fractions. Multiply proper fractions and MIXED NUMBERS by whole NUMBERS.
Year 6	Multiply NUMBERS up to 4 digits by a 2-digit whole NUMBER. Divide NUMBERS up to 4 digits by a 2-digit whole NUMBER. Interpret REMAINDERS in division. Identify COMMON factors, COMMON MULTIPLES and PRIME NUMBERS. Solve PROBLEMS involving MULTIPLICATION and division. Solve PROBLEMS involving the calculation and conversion of units of MEASURE.	Find equivalent fractions using COMMON MULTIPLES. SIMPLIFY fractions using COMMON factors. COMPARE and order fractions. Add and subtract fractions. Multiply proper fractions. Divide proper fractions by whole NUMBERS. Relate division of whole NUMBERS to fractions and DECIMALS.

	Decimals	Percentages
Nursery		
Reception		
Year 1		
Year 2		
Year 3		
Year 4	<p>Recognise and write tenths. Recognise and write hundredths.</p> <p>COMPARE NUMBERS with the SAME NUMBER of DECIMAL places.</p> <p>COMPLETE NUMBER patterns involving DECIMALS.</p> <p>Round DECIMALS with one DECIMAL place to the nearest whole NUMBER. Recognise and write DECIMAL equivalents of $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$.</p> <p>Divide a 1- or 2-digit NUMBER by 10 and by 100..</p> <p>Solve SIMPLE MEASURE and MONEY PROBLEMS involving DECIMALS.</p>	
Year 5	<p>Relate division of whole numbers to fractions and decimals.</p> <p>Write fractions as decimals. Tell the place value of digits in a decimal number. Multiply and divide decimals with 1-digit and 2-digit whole numbers.</p>	<p>Recognise the per cent symbol (%). Find percentages of a given number. Interpret a percentage as a fraction of an amount.</p>
Year 6	<p>Read and write DECIMALS up to three DECIMAL places. COMPARE and order DECIMALS up to three DECIMAL places.</p> <p>Write fractions as DECIMALS. Add and subtract DECIMALS. Round DECIMALS with two DECIMAL places to the nearest whole NUMBER and to one DECIMAL place. Solve PROBLEMS involving DECIMALS up to three DECIMAL places.</p>	<p>Calculate the percentage of a number and a quantity. Use percentage to describe changes. Use percentage to compare.</p>

	Length	Area and Perimeter	Volume
Nursery	Compare the lengths of objects. Explore changing the length of materials.		Compare the capacity of objects.
Reception	Make direct comparisons of length. Use mathematical language to describe length.		COMPARE VOLUME and capacity. Use half and a quarter to describe VOLUME. Find VOLUME and capacity.
Year 1	Compare the length of objects. Measure the length of objects.		Compare volume and capacity. Use half and a quarter to describe volume. Find volume and capacity.
Year 2	How to measure length in metres (m). How to measure length in centimetres (cm). When to use cm or m to measure length. How to compare and order length. How to measure and draw lines. How to solve word problems on length.		Compare volume. Measure volume in litres (l) and millilitres (ml). Solve word problems on volume.
Year 3	Write length in metres (m) and centimetres (cm). Convert length from m and cm to cm. Convert length from cm to m and cm. Write length in kilometres (km) and metres (m). Convert length from km and m to m. Convert length from m to km and m. Compare different lengths. Solve word problems on length	Measure the total length around a shape. Find the perimeter of figures using a square grid . Find the perimeter of figures in centimetres (cm) and metres (m). Find the perimeter of squares and rectangles	Measure volume in millilitres (ml) and litres (l). Measure capacity in ml and l. Write volume in ml and l. Write capacity in ml and l. Solve word problems on volume and capacity
Year 4	Measure and estimate length. Convert units of length.	Measure perimeter in different units.	Measure and estimate volume. Convert units of volume.
Year 5	Convert measurements of length. Solve problems involving measurements	Find the perimeter of a figure. Find the area of a figure. Use scale diagrams to find the perimeter and the area of a figure. Estimate the area of a figure	Find and compare the volumes of solids. Find and compare the capacity of rectangular boxes. Estimate volume and capacity. Convert units of volume. Solve word problems involving volume
Year 6		Find the perimeter and the area of rectangles, triangles and parallelograms. Use formulae to find the area of rectangles, triangles and parallelograms. Use the area of rectangles to find the area of other types of polygons.	Find the volume of solids by counting unit cubes. Calculate the volume of cubes and cuboids in standard units (mm ³ , cm ³ , m ³ and km ³). Solve problems involving volume.

	Geometry	Mass	Temperature
Nursery	Talk about and explore 2D and 3D shapes using the language of sides, corners, straight, flat, round.	Compare the weight of objects	
Reception	Recognise and describe 2D shapes. Explore how 2D and 3D shapes can be combined to make new shapes	Compare mass using some mathematical language.	
Year 1	Name solid and flat shapes. Look for flat shapes in solids. Group shapes. Make and complete patterns with shapes	Compare the mass of objects. Find the mass of objects.	
Year 2	Name triangles, quadrilaterals and polygons. Identify the number of sides and vertices of a shape. Identify the lines of symmetry of a shape or figure. Form different figures with shapes. Name the shapes that make up a figure. Sort shapes. Draw figures on a square grid and a dot grid. Make and complete patterns. Tell how patterns are formed from shapes. Move shapes. Turn shapes. Recognise flat faces and curved surfaces. Name and describe spheres, cuboids, cubes, cylinders, cones, pyramids and prisms. Identify the number of faces, edges and vertices of a shape. Fold two-dimensional shapes into three-dimensional ones. Group shapes in different ways. Form structures with shapes. Make patterns with shapes.	Measure mass in kilograms (kg). Measure mass in grams (g). Compare and order mass. Solve word problems on mass.	Read a thermometer. Measure and write down the temperature.
Year 3	Recognise an angle. Find angles in shapes. Find a right angle, an acute angle and an obtuse angle. Compare the sizes of angles. Make a half turn, a three-quarters turn and a full turn	Read the scales for mass in kilograms (kg) and grams (g). Solve word problems on mass.	
Year 4	Identify acute and obtuse angles. Compare and order angles. Compare and classify triangles and quadrilaterals. Identify lines of symmetry in 2-D shapes. Complete a simple symmetrical figure with respect to a specific line of symmetry	Measure and estimate mass. Convert units of mass.	
Year 5	Identify acute angles, right angles, obtuse angles and reflex angles. Draw and measure given angles. Identify angles on a straight line and angles that meet at a point. Find unknown angles in squares and rectangles. Identify regular polygons. Identify 3-D shapes from 2-D drawings	Convert measurements of mass. Solve problems involving measurements.	Tell the temperature. Solve problems involving measurements.
Year 6	Recognise angles that meet at a point, angles on a straight line, and vertically opposite angles. Find unknown angles in triangles, quadrilaterals and regular polygons. Identify the radius, diameter, circumference and centre of a circle. Draw 2-D shapes using given dimensions and angles. Identify and draw nets of 3-D shapes.		

	Money	Time	Graphs
Nursery		Sequence events using the language of first, then.	
Reception		Use the vocabulary of yesterday, today and tomorrow. Begin to recognize that events happen on the same day every week	
Year 1	Recognise coins. Recognise notes.	Tell time to the hour. Tell time to the half hour. Compare different times. Recognise dates on a calendar.	
Year 2	Name coins and notes. Count an amount of money. Show amounts of money in different ways. Exchange coins and notes. Compare amounts of money. Calculate change. Solve word problems on money	Tell and write the time to 5 minutes. Draw hands on a clock face to show time. Find the duration of time. Find the ending or starting time. Compare and sequence intervals of time. Know the number of minutes in an hour. Know the number of hours in a day	Read information from pictograms, block diagrams, tally charts and tables. Make pictograms, block diagrams, tally charts and tables. Solve problems using information from pictograms, block diagrams, tally charts and tables.
Year 3	Name the amount of money in pounds and pence. Use different ways to show the same amount of money. Add money in pounds and pence. Subtract money in pounds and pence. Calculate change in pounds and pence. Solve word problems on money.	Tell and write time in a.m. and in p.m. Tell and write time using "past" and "to". Tell and write time shown on different types of clocks. Measure time in seconds, hours and minutes. Find starting time, ending time and duration. Change minutes to seconds, and seconds to minutes. Find the number of days using a calendar. Know the number of days in each month, year and leap year	Draw picture graphs and bar graphs. Read and interpret bar graphs. Solve problems using information from bar graphs
Year 4	Count an amount of money and write it using decimals. Compare different amounts of money. Round money to the nearest £ and to the nearest £10. Estimate total amounts of money. Solve problems involving money.	Tell time using the 24-hour clock. Change time in minutes to seconds. Change time in hours to minutes. Change time in years to months. Change time in months to years. Find the duration, starting time and finishing time. Solve word problems on time.	Use a table to show information. Draw, read and interpret tables, picture graphs, bar graphs and line graphs. Solve problems using information from tables and graphs.
Year 5		Convert measurements of time. Solve problems involving measurements.	Read and interpret information in a timetable. Read, interpret and complete information in a table. Read and interpret information from a line graph. Solve word problems using information from a line graph
Year 6			Calculate and interpret the mean as an average. Draw and read pie charts. Draw and read graphs. Solve problems using information provided by graphs.

	Position and movement	Ratio	Negative Numbers	Algebra	Roman Numerals
Nursery	Describe a familiar route using spatial words. Understand and use positional language.				
Reception	Use the correct language to describe where shapes are in relation to others				
Year 1					
Year 2					
Year 3					
Year 4	Describe positions using coordinates. Plot points and form figures on the grid. Describe movement including translation of figures.				Read and write Roman numerals for 1 to 20. Read and write Roman numerals to 100.
Year 5	Write the coordinates of points. Describe translations and reflections. Find the position of a shape after translation or after reflection.		Count forwards and backwards including negative numbers and interpret them in context.		Write Roman numerals up to 1000. Write years in Roman numerals.
Year 6	Use coordinate grids with negative numbers. Describe positions of points with coordinates. Draw, translate and reflect simple shapes on the coordinate plane.	Compare quantities and numbers using ratios. Solve problems involving ratios	Add and subtract negative numbers. Use negative numbers in context. Solve problems involving negative numbers.	Describe and complete a pattern. Write and evaluate algebraic expressions. Write and use formulae. Solve equations.	