

Maths Progression of Skills Map



This map outlines the progression of skills and knowledge that students will acquire each year.

Year Group	Area of Learning	Skills and Concepts	Expected Outcomes	Adaptations for Diverse Learners	Concrete, Pictorial, and Abstract Learning
Reception	Number and Place Value	<ul style="list-style-type: none"> - Count, read, and write numbers to 20. - Understand one-to-one correspondence. 	<ul style="list-style-type: none"> - Can count, recognise, and write numbers to 20. - Can identify one more/less. 	<ul style="list-style-type: none"> - Use counters, number tracks, and visual aids. - Encourage peer interactions for counting games. 	<ul style="list-style-type: none"> - Concrete: Counters, beads. - Pictorial: Number lines, images of objects. - Abstract: Written numbers, simple number sentences.
	Addition and Subtraction	<ul style="list-style-type: none"> - Combine and separate sets of objects. - Understand addition and subtraction as joining and taking away. 	<ul style="list-style-type: none"> - Can solve simple problems using addition and subtraction with objects. 	<ul style="list-style-type: none"> - Provide hands-on materials for problem-solving. - Use stories to contextualise addition and subtraction. 	<ul style="list-style-type: none"> - Concrete: Physical objects (blocks, toys). - Pictorial: Drawings of objects. - Abstract: Simple addition and subtraction symbols.
	Shape, Space and Measures	<ul style="list-style-type: none"> - Recognise and name 2D and 3D shapes. - Compare lengths and weights. 	<ul style="list-style-type: none"> - Can identify and describe shapes and sizes. - Can sort objects by shape and size. 	<ul style="list-style-type: none"> - Use shape sorting activities and tactile materials. - Integrate real-life contexts for comparisons. 	<ul style="list-style-type: none"> - Concrete: Shape sorting, measuring tools. - Pictorial: Shape charts, visual comparisons. - Abstract: Shape names, simple sentences about size.
	Patterns	<ul style="list-style-type: none"> - Recognise, create, and describe patterns. 	<ul style="list-style-type: none"> - Can identify and create repeating patterns 	<ul style="list-style-type: none"> - Engage students in hands-on pattern-making activities. - Use music and movement for pattern recognition. 	<ul style="list-style-type: none"> - Concrete: Manipulatives for creating patterns. - Pictorial: Pattern pictures or cards. - Abstract: Written descriptions of patterns.
Year 1	Number and Place Value	<ul style="list-style-type: none"> - Count, read, and write numbers to 20. - Understand place value in 	<ul style="list-style-type: none"> - Can count, read, and write numbers to 20. - Can identify one 	<ul style="list-style-type: none"> - Use manipulatives (e.g., counters, number lines). 	<ul style="list-style-type: none"> - Concrete: Use counters and blocks. - Pictorial: Number lines and

		tens and ones. - Compare and order numbers.	more/less. - Can compare numbers using $<$, $>$, $=$.	- Provide visual aids and number charts.	charts. - Abstract: Number sentences (e.g., $5 + 3 = 8$).
	Addition and Subtraction	- Use number lines to add and subtract. - Solve simple one-step problems.	- Can solve one-step addition and subtraction problems. - Can use a number line to calculate.	- Use pictorial representations for problems. - Allow the use of number lines for calculations.	- Concrete: Physical objects for counting. - Pictorial: Drawings to represent problems. - Abstract: Written equations (e.g., $7 - 2 = 5$).
	Multiplication and Division	- Understand the concept of doubling and halving. - Use arrays for multiplication.	- Can double and halve numbers up to 20. - Can solve simple multiplication problems ($\times 2$, $\times 5$).	- Introduce concrete materials to demonstrate doubling and halving. - Provide worksheets with visual supports.	- Concrete: Use groups of objects for doubling/halving. - Pictorial: Arrays to visualise multiplication. - Abstract: Multiplication sentences (e.g., $4 \times 3 = 12$).
	Fractions	- Recognise and find halves and quarters of shapes and amounts.	- Can identify and create halves and quarters.	- Use real-life examples (e.g., pizza slices) to explain fractions. - Offer hands-on activities with shapes.	- Concrete: Use food items (e.g., cutting fruit). - Pictorial: Fraction circles and diagrams. - Abstract: Writing fractions (e.g., $1/2$, $1/4$).
	Measurement	- Compare lengths, weights, and capacities. - Understand and use time (o'clock).	- Can measure using non-standard units. - Can tell the time to the hour and half-hour.	- Provide rulers and scales for hands-on measurement. - Use clocks with visual aids for teaching time.	- Concrete: Measure with objects (e.g., paper clips). - Pictorial: Draw clock faces. - Abstract: Write time in numbers (e.g., 3:00).
	Geometry	- Identify and describe 2D and 3D shapes. - Recognise simple patterns.	- Can name and describe common 2D and 3D shapes. - Can create and identify patterns.	- Use shape sorting activities and tactile materials. - Integrate art to explore shapes and patterns.	- Concrete: Use physical shapes to explore properties. - Pictorial: Draw shapes and patterns. - Abstract: Classify shapes by attributes (e.g., triangle, square).

Year 2	Number and Place Value	<ul style="list-style-type: none"> - Count in steps of 2, 3, and 5. - Understand place value to 100. 	<ul style="list-style-type: none"> - Can count and write numbers up to 100. - Can partition two-digit numbers. 	<ul style="list-style-type: none"> - Offer visual aids such as ten frames or base ten blocks. - Group students for peer learning and support. 	<ul style="list-style-type: none"> - Concrete: Use base ten blocks for partitioning. - Pictorial: Ten frames for visual counting. - Abstract: Write numbers in expanded form (e.g., $23 = 20 + 3$).
	Addition and Subtraction	<ul style="list-style-type: none"> - Use partitioning to add and subtract two-digit numbers. 	<ul style="list-style-type: none"> - Can add and subtract two-digit numbers. - Can solve problems using addition and subtraction. 	<ul style="list-style-type: none"> - Provide number lines and counting tools. - Use visual problem-solving strategies, like bar models. 	<ul style="list-style-type: none"> - Concrete: Use manipulatives to represent numbers. - Pictorial: Bar models for addition and subtraction. - Abstract: Write equations (e.g., $45 + 32$).
	Multiplication and Division	<ul style="list-style-type: none"> - Understand and use the multiplication tables (x2, x5, x10). - Solve problems using division. 	<ul style="list-style-type: none"> - Can solve multiplication and division problems within the tables learned. 	<ul style="list-style-type: none"> - Provide multiplication charts. - Use arrays and groups for visual multiplication concepts. 	<ul style="list-style-type: none"> - Concrete: Use counters for groups in multiplication. - Pictorial: Draw arrays to represent problems. - Abstract: Write multiplication facts (e.g., $5 \times 2 = 10$).
	Fractions	<ul style="list-style-type: none"> - Understand equivalent fractions (e.g., $2/4 = 1/2$). - Find simple fractions of shapes and amounts. 	<ul style="list-style-type: none"> - Can identify and create simple fractions. - Can compare and order fractions. 	<ul style="list-style-type: none"> - Use visual aids to demonstrate fractions on a number line. - Engage in practical activities with fraction amounts. 	<ul style="list-style-type: none"> - Concrete: Use objects like pizza to demonstrate fractions. - Pictorial: Draw fraction bars. - Abstract: Write fractions and compare them (e.g., $1/2, 2/4$).
	Measurement	<ul style="list-style-type: none"> - Measure using standard units (cm, kg, l). - Tell time to the nearest 5 minutes. 	<ul style="list-style-type: none"> - Can compare and order lengths and weights. - Can tell the time accurately. 	<ul style="list-style-type: none"> - Allow use of measuring tools during activities. - Use interactive clocks for teaching time. 	<ul style="list-style-type: none"> - Concrete: Measure objects with rulers. - Pictorial: Draw scales for weight. - Abstract: Write measurements in numerical form (e.g., 20 cm).

	Geometry	<ul style="list-style-type: none"> - Describe position, direction, and movement. 	<ul style="list-style-type: none"> - Can describe and follow simple instructions to move in different directions. 	<ul style="list-style-type: none"> - Use movement games to illustrate direction. - Provide maps for spatial awareness activities. 	<ul style="list-style-type: none"> - Concrete: Use physical movement (e.g., hopscotch). - Pictorial: Draw maps with directions. - Abstract: Write directional commands (e.g., left, right).
Year 3	Number and Place Value	<ul style="list-style-type: none"> - Read and write numbers to 1000. - Understand the value of each digit. 	<ul style="list-style-type: none"> - Can count in multiples of 4, 8, 50, and 100. - Can compare and order numbers up to 1000. 	<ul style="list-style-type: none"> - Utilise number charts and place value mats. - Provide differentiated tasks based on ability. 	<ul style="list-style-type: none"> - Concrete: Use base ten materials for larger numbers. - Pictorial: Place value grids. - Abstract: Write numbers in standard and expanded form.
	Addition and Subtraction	<ul style="list-style-type: none"> - Use column methods for addition and subtraction. - Solve multi-step problems. 	<ul style="list-style-type: none"> - Can add and subtract three-digit numbers. - Can apply addition and subtraction in real-life contexts. 	<ul style="list-style-type: none"> - Offer guided practice and peer support. - Use digital tools for interactive practice. 	<ul style="list-style-type: none"> - Concrete: Use manipulatives to model addition/subtraction. - Pictorial: Column method representations. - Abstract: Written algorithms (e.g., $456 + 234$).
	Multiplication and Division	<ul style="list-style-type: none"> - Recall multiplication and division facts for 3, 4, and 8 times tables. - Understand remainders. 	<ul style="list-style-type: none"> - Can multiply and divide numbers using the learned tables. - Can solve problems involving multiplication and division. 	<ul style="list-style-type: none"> - Use multiplication flashcards and games. - Use manipulatives to visualise division. 	<ul style="list-style-type: none"> - Concrete: Arrays with objects for multiplication. - Pictorial: Drawings of groups. - Abstract: Multiplication equations (e.g., $3 \times 4 = 12$).
	Fractions	<ul style="list-style-type: none"> - Understand and use fractions as numbers. - Find fractions of amounts. 	<ul style="list-style-type: none"> - Can add and subtract fractions with the same denominator. - Can represent fractions visually and in numbers. 	<ul style="list-style-type: none"> - Provide fraction strips for hands-on learning. - Use real-life scenarios to explain fractions. 	<ul style="list-style-type: none"> - Concrete: Use food items for fraction understanding. - Pictorial: Fraction diagrams. - Abstract: Numerical representation of fractions (e.g., $3/4 + 1/4 = 1$).
	Measurement	<ul style="list-style-type: none"> - Measure lengths in meters and centimetres. - Understand volume in litres. 	<ul style="list-style-type: none"> - Can solve problems involving measures. - Can tell the time and 	<ul style="list-style-type: none"> - Allow practical measurement tasks (e.g., measuring classroom items). 	<ul style="list-style-type: none"> - Concrete: Measuring liquids with containers. - Pictorial: Charts for different measurements.

			convert between hours and minutes.	- Use cooking to explore volume.	- Abstract: Write conversions (e.g., 1 hour = 60 minutes).
	Geometry	- Identify angles and shapes. - Describe 2D and 3D shapes using properties.	- Can classify shapes by properties. - Can identify right angles and other angles.	- Use building blocks to explore shapes and angles. - Provide geometric tools for hands-on learning.	- Concrete: Use protractors and rulers. - Pictorial: Draw shapes and label properties. - Abstract: Write properties of shapes (e.g., triangles have three sides).
Year 4	Number and Place Value	- Read, write, and compare numbers up to 10,000. - Understand negative numbers.	- Can round numbers to the nearest 10, 100, and 1000. - Can identify the place value of digits in larger numbers.	- Provide number lines and interactive games. - Differentiate tasks based on readiness.	- Concrete: Base ten blocks for larger numbers. - Pictorial: Place value grids for large numbers. - Abstract: Write numbers in standard and expanded form.
	Addition and Subtraction	- Use efficient column methods for multi-digit addition and subtraction.	- Can solve multi-step problems involving addition and subtraction.	- Encourage collaboration in problem-solving tasks. - Use technology for interactive learning.	- Concrete: Use manipulatives to represent numbers. - Pictorial: Column method representations. - Abstract: Written algorithms for addition and subtraction.
	Multiplication and Division	- Understand and use the properties of multiplication. - Divide numbers using the short division method.	- Can multiply and divide numbers up to 100. - Can solve multi-step problems involving multiplication and division.	- Use multiplication tables for practice. - Provide visual aids for division methods.	- Concrete: Use arrays and grouping for multiplication. - Pictorial: Short division diagrams. - Abstract: Write multiplication and division equations.
	Fractions	- Understand and use improper fractions and mixed numbers. - Compare and order fractions.	- Can add and subtract fractions with different denominators. - Can represent fractions visually and in numbers.	- Use fraction strips and visual aids for understanding. - Incorporate real-life contexts for fractions.	- Concrete: Use food items for fraction learning. - Pictorial: Draw fraction models. - Abstract: Numerical

					representation of fractions and operations.
	Measurement	<ul style="list-style-type: none"> - Convert between different units of measure. - Measure perimeter and area. 	<ul style="list-style-type: none"> - Can solve problems involving measurements. - Can calculate perimeter and area of simple shapes. 	<ul style="list-style-type: none"> - Allow use of measuring tools and provide varied measurement tasks. - Use grid paper for area calculations. 	<ul style="list-style-type: none"> - Concrete: Measure classroom items for perimeter. - Pictorial: Area and perimeter diagrams. - Abstract: Write formulas for area and perimeter (e.g., $A = l \times w$).
	Geometry	<ul style="list-style-type: none"> - Identify and classify quadrilaterals and triangles. - Understand symmetry and transformations. 	<ul style="list-style-type: none"> - Can identify and create symmetrical shapes. - Can perform translations and reflections. 	<ul style="list-style-type: none"> - Use geometric tools for hands-on learning. - Provide art materials for symmetry activities. 	<ul style="list-style-type: none"> - Concrete: Use shapes for classification. - Pictorial: Draw shapes with lines of symmetry. - Abstract: Write rules for transformations.
Year 5	Number and Place Value	<ul style="list-style-type: none"> - Read, write, and compare numbers up to 1,000,000. - Understand decimal place value. 	<ul style="list-style-type: none"> - Can round numbers to any place value. - Can interpret and compare decimal numbers. 	<ul style="list-style-type: none"> - Use number charts and interactive activities. - Differentiate tasks based on ability levels. 	<ul style="list-style-type: none"> - Concrete: Base ten materials for understanding large numbers. - Pictorial: Decimal grids. - Abstract: Write numbers in expanded and decimal forms.
	Addition and Subtraction	<ul style="list-style-type: none"> - Use column methods for addition and subtraction of large numbers. 	<ul style="list-style-type: none"> - Can solve multi-step problems involving addition and subtraction with large numbers. 	<ul style="list-style-type: none"> - Provide additional support for complex calculations. - Use calculators for verification. 	<ul style="list-style-type: none"> - Concrete: Use manipulatives to represent calculations. - Pictorial: Column method representations. - Abstract: Written algorithms for large number operations.
	Multiplication and Division	<ul style="list-style-type: none"> - Multiply and divide numbers by two-digit numbers. - Understand factors and multiples. 	<ul style="list-style-type: none"> - Can solve multi-step problems involving multiplication and division. - Can find factors and multiples. 	<ul style="list-style-type: none"> - Provide practice through games and cooperative learning. - Use visual aids for understanding factors. 	<ul style="list-style-type: none"> - Concrete: Use arrays and grouping for multiplication. - Pictorial: Factor trees. - Abstract: Write multiplication and division equations with two-digit numbers.

	Fractions	<ul style="list-style-type: none"> - Add and subtract fractions with unlike denominators. - Multiply and divide fractions. 	<ul style="list-style-type: none"> - Can simplify fractions. - Can solve multi-step problems involving fractions. 	<ul style="list-style-type: none"> - Use fraction strips and visual aids for understanding. - Incorporate real-life contexts for fractions. 	<ul style="list-style-type: none"> - Concrete: Use food items for fraction operations. - Pictorial: Draw models of fraction multiplication. - Abstract: Numerical representation of fraction operations.
	Measurement	<ul style="list-style-type: none"> - Convert between different units of measure (including metric and imperial). - Calculate volume and area of complex shapes. 	<ul style="list-style-type: none"> - Can solve problems involving measurements and conversions. - Can calculate the area of triangles and parallelograms. 	<ul style="list-style-type: none"> - Allow use of measuring tools and provide varied measurement tasks. - Use grid paper for area calculations. 	<ul style="list-style-type: none"> - Concrete: Measure items with rulers and scales. - Pictorial: Draw complex shapes for area calculations. - Abstract: Write formulas for area and volume.
	Geometry	<ul style="list-style-type: none"> - Understand 3D shapes and their properties. - Classify angles and identify types of angles. 	<ul style="list-style-type: none"> - Can identify and describe the properties of 3D shapes. - Can measure and compare angles. 	<ul style="list-style-type: none"> - Use geometric tools for hands-on learning. - Provide art materials for shape exploration. 	<ul style="list-style-type: none"> - Concrete: Use 3D models for understanding shapes. - Pictorial: Draw angles and label them. - Abstract: Write angle measurements and classifications.
Year 6	Number and Place Value	<ul style="list-style-type: none"> - Read, write, and compare numbers up to 10,000,000. - Understand negative numbers and their applications. 	<ul style="list-style-type: none"> - Can round numbers to any place value. - Can interpret and compare decimal numbers. 	<ul style="list-style-type: none"> - Use number charts and interactive activities. - Differentiate tasks based on ability levels. 	<ul style="list-style-type: none"> - Concrete: Use base ten materials for understanding large numbers. - Pictorial: Decimal grids. - Abstract: Write numbers in expanded and decimal forms.
	Addition and Subtraction	<ul style="list-style-type: none"> - Use mental strategies for addition and subtraction. - Solve multi-step problems with large numbers. 	<ul style="list-style-type: none"> - Can solve multi-step problems involving addition and subtraction with large numbers. 	<ul style="list-style-type: none"> - Provide additional support for complex calculations. - Use calculators for verification. 	<ul style="list-style-type: none"> - Concrete: Use manipulatives to represent calculations. - Pictorial: Column method representations. - Abstract: Written algorithms for large number operations.

	Multiplication and Division	<ul style="list-style-type: none"> - Multiply and divide by fractions and decimals. - Solve problems involving ratios and proportions. 	<ul style="list-style-type: none"> - Can solve multi-step problems involving multiplication and division. - Can find ratios and proportions. 	<ul style="list-style-type: none"> - Provide practice through games and cooperative learning. - Use visual aids for understanding ratios. 	<ul style="list-style-type: none"> - Concrete: Use visual aids for understanding ratios. - Pictorial: Ratio diagrams. - Abstract: Write equations for ratios and proportions.
	Fractions	<ul style="list-style-type: none"> - Add and subtract fractions with unlike denominators. - Multiply and divide fractions. 	<ul style="list-style-type: none"> - Can simplify fractions. - Can solve multi-step problems involving fractions. 	<ul style="list-style-type: none"> - Use fraction strips and visual aids for understanding. - Incorporate real-life contexts for fractions. 	<ul style="list-style-type: none"> - Concrete: Use food items for fraction operations. - Pictorial: Draw models of fraction multiplication. - Abstract: Numerical representation of fraction operations.
	Measurement	<ul style="list-style-type: none"> - Calculate surface area and volume of 3D shapes. - Solve problems involving time and money. 	<ul style="list-style-type: none"> - Can solve problems involving measurements and conversions. - Can calculate the area of complex shapes. 	<ul style="list-style-type: none"> - Allow use of measuring tools and provide varied measurement tasks. - Use grid paper for area calculations. 	<ul style="list-style-type: none"> - Concrete: Measure items with rulers and scales. - Pictorial: Draw complex shapes for area calculations. - Abstract: Write formulas for surface area and volume.
	Geometry	<ul style="list-style-type: none"> - Understand transformations and symmetry. - Identify and describe 3D shapes and their properties. 	<ul style="list-style-type: none"> - Can create and identify symmetrical patterns. - Can describe and compare 3D shapes based on properties. 	<ul style="list-style-type: none"> - Use geometric tools for hands-on learning. - Provide art materials for shape exploration. 	<ul style="list-style-type: none"> - Concrete: Use 3D models for understanding shapes. - Pictorial: Draw angles and label them. - Abstract: Write angle measurements and classifications.