Tracking Individual Pupil Progress (TIPPS): Primary Mathematics Assessment Profile

Year 1 Understanding and investigating within number

Stage B: typical range of Year 1 attainment			
	1.1 **Beginning to develop Y1 expectations**	**1.2** **Embedding understanding of Y1 expectations**	**1.3** **Demonstrates mastery and application of Y1 expectations**
Place value, ordering and rounding			
• **Counting**	Rote counts from 0 or 1 to 30 or beyond and back from given number up to 30	Rote counts up to 100, forwards and backwards from 0, 1 or any given number.	Rote counts fluently up to and across 100, forwards /backwards from 0, 1 or any number.
• **Reading and writing numbers**	Reads and writes all numbers from 1 up to 20 in numerals and some in words.	Reads and writes most numbers up to 100 in numerals and all numbers to 20 in words.	Reads and writes all numbers to 100 in numerals and all, to at least twenty in words.
• **Comparing and ordering numbers**	Given a number up to 30 identifies one more or one less.	Given a number up to 100 identifies one more or one less.	Given any number up to 100 and beyond can fluently identify one more or one less.
	Starts to use ordinal numbers 1st, 2nd, 3rd to 10th	Understands and uses ordinal numbers to 10th and beyond.	Confident and fluent in use of ordinal numbers and associated language to 20th and beyond
	Starts to use the language of; equal to, more than, less than (fewer), most, least to compare and order numbers familiar numbers and quantities	Uses the language of; equal to, more than, less than (fewer), most, least to compare and order familiar numbers and quantities.	Confidently and accurately uses the language of; equal to, more than, less than (fewer), most, least
	Begins to use objects and pictorial representations, including the number line to support understanding of numbers and quantities.	Becoming more independent in identifying and representing numbers with objects and pictorial representations including the number line.	Confidently identifies and represents numbers and quantities with different objects and pictorial representations including the number line.
• **Place value**		Begins to use objects and pictorial representations to develop understanding of place value in numbers to 20.	Uses objects and pictorial representations to show understanding of place value in numbers to 20 and beyond.
Properties of numbers / sequences			
• **Counting in multiples**	Starts to count in multiples of two and to relate these to odd and even numbers.	Counts fluently in multiples of two and starting to be confident counting in multiples of 5 and ten.	Counts fluently in twos, fives and tens from different multiples. Describes patterns observed.
• **Recognising and describing patterns**	Recognises and creates simple repeating patterns with objects and shapes sometimes with support.	Recognises, creates and extends a greater range of pattern structures with objects and shapes	*Describes simple patterns and relationships using objects, shapes or numbers and decide if examples satisfy given conditions*
Fractions			
	Starts to recognise find and name a half as one of two equal parts of an object, shape or quantity.	Recognises, finds and names a half as one of two equal parts of an object, shape, set of objects or a length, and starts to recognise, find and name a quarter as one of four equal parts of an object shape or quantity.	Confidently recognises, finds and names one half / one quarter as two / four equal parts of an object shape or quantity. Connect halves and quarters to equal sharing and grouping and combines halves and quarters as parts of a whole.

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Year 1 Developing and applying calculation

Stage B: typical range of Year 1 attainment			
	1.1 **Beginning to develop Y1 expectations**	**1,2** **Embedding understanding of Y1 expectations**	**1.3** **Demonstrates mastery and application of Y1 expectations**
Addition and subtraction			
• **Understanding number operations and the links between them**	Solves one-step problems with support, involving addition and subtraction using concrete objects and pictorial representations, and missing number problems such as 7 = Δ -3. Starting to understand the language of put together, add, altogether, total, take away, distance between, difference between, more than and less than.	Solves one-step problems independently, involving addition and subtraction sometimes using concrete objects and pictorial representations, and missing number problems such as 7 = Δ -9. Independently reads, writes and interprets simple mathematical statements involving addition (+), subtraction (-) and equals signs. Starting to use the language of put together, add, altogether, total, take away, distance between, difference between, more than and less than.	Solves and *poses* one-step problems independently, involving addition and subtraction using concrete objects and pictorial representations when required, and missing number problems such as 7 = Δ -19. Confidently reads, writes and interprets mathematical statements involving addition (+), subtraction (-) and equals signs e.g. 5 +3 = 4 + Δ Confidently uses the language of addition and subtraction.
• **Recall of number facts**	Represents and uses number bonds and related subtraction facts within ten Starts to memorise and reason with number bonds to 10 in several forms e.g. 3 + 4 = 7, 7 – 3 = 4, 3 = 7 – 4, reinforcing addition and subtraction as related operations	Represents and uses number bonds and related subtraction facts within ten and moving to bonds within 20. Uses bonds for 10 and starts to memorise and reason with number bonds to 20 in several forms e.g.13 + 4 = 7, 17 – 13 = 4, 13 = 17 – 4, reinforcing addition and subtraction as related operations. Starting to connect bonds for 10 and 20.	Represents and uses number bonds and related subtraction facts within 20 Memorises and reasons with number bonds to 20 in several forms e.g.13 + 4 = 7, 17 – 13 = 4, 13 = 17 – 4, reinforcing addition and subtraction as related operations. Explains connections between bonds for 10 and 20.
• **Mental calculation**	Adds and subtracts one-digit numbers, including zero. Realises the effect of adding or subtracting zero.	Beginning to add and subtracts one-digit numbers and two-digit numbers to 20, including zero.	Independently adds and subtracts one-digit numbers and two-digit numbers to 20, including zero.
Multiplication and division			
• **Understanding number operations and the links between them**	Starts to connect counting in twos, number patterns and arrays through practical experiences with support.	Understands how counting in twos, fives and tens is connected with number patterns and arrays. Begins to use grouping and sharing of small quantities to understand • Multiplications and division • Doubling • Connections with fractions	Makes and explains connections between counting in twos, fives and tens, number patterns and arrays Confident with grouping and sharing of small quantities to understand and explain • Multiplications and division • Doubling • Connections with fractions
• **Recall of number facts**	Counts in multiples of two.	Counts in multiples of 2, 5 and 10	Fluently counts in multiples of 2, 5 and 10.
• **Mental calculation**	Begin to use objects and pictorial representation to solve repeated addition and grouping problems.	Starts to solve one step problems involving multiplication and division, by calculating the answer using objects, arrays and pictorial representations with support.	More confident in solving one step problems involving multiplication and division, by calculating the answer using objects, arrays and pictorial representations with support.

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Year 1 Measurement

Stage B: typical range of Year 1 attainment			
	1.1 **Beginning to develop Y1 expectations**	**1,2** **Embedding understanding of Y1 expectations**	**1.3** **Demonstrates mastery and application of Y1 expectations**
Measurement			
• **Measuring length**	Starts to measure with support, lengths and heights using non standard units and to use these to describe, compare and solve practical problems e.g. who is taller? Starting to develop of use language such as long / longer /short / shorter tall/ taller.	Starts to measure and begins to record, with support, lengths and heights using standard units and to use these to describe, compare and solve practical problems e.g. which snake is longer? Becoming more confident in use of language of length and height.	Measures and records lengths and heights using standard units and uses these to describe, compare and solve practical problems e.g. How much longer is this snake than this one? Confidently uses language related to length and height
• **Measuring mass/weight**	Starts to measure with support, mass/weight using non standard units and to use these to describe, compare and solve practical problems e.g. which is heavier / lighter? Starting to develop of use language such as heavy / heavier /light / lighter / lightest / weight	Starts to measure and begins to record, with support, mass/weight using standard units and to use these to describe, compare and solve practical problems e.g. which is heavier / lighter? Becoming more confident in use of language related to weight /mass.	Measures and records, mass/weight using standard units and to use these to describe, compare and solve practical problems e.g. which is heavier / lighter? How much heavier is this one? Confidently uses language related to weight /mass.
• **Measuring capacity / volume**	Starts to measure with support, capacity / volume using non standard units and to use these to describe, compare and solve practical problems e.g. which jug contains more? Starting to develop use of language such as full / empty / more than / less than / half / half full.	Starts to measure and begins to record, with support, capacity / volume using standard units and to use these to describe, compare and solve practical problems e.g. which jug contains more? Becoming more confident in use of language of capacity.	Measures and records, capacity / volume using standard units and to use these to describe, compare and solve practical problems e.g. How much more to fill the jug? Confidently uses language of capacity
• **Time**	Starts to sequence events in chronological order using appropriate language e.g. before / after / next / first / today / yesterday / tomorrow / morning / afternoon / evening. Starts to recognise and use language relating to dates, including days of week, weeks, months and years.	Sequences events in chronological order using appropriate language Recognises and uses language relating to dates, including days of week, weeks, months and years. Measures and begins to record, with support, time; using hours, minutes and seconds. Starts to tell the time to the hour and half past the hour and draws hands on a clock face to show these times. Uses the language of o'clock and half past.	Confidently uses appropriate language when sequencing events in chronological order. Fluent in the use of language relating to dates; days of week, months, years. Reads the time to the hour and half hour confidently using vocabulary of o'clock and half past. Draws the hands on a clock face to show times: oclock and half past Compare, describe and solve practical problems for time e.g. quicker, slower, earlier later.
• **Money**	Starts to recognise and know the value of different denominations of coins and notes.	More confident in recognising the value of different denominations of coins and notes.	Recognises the value of different denominations of coins and notes.

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Year 1 Geometry

Stage B: typical range of Year 1 attainment			
	1.1 **Beginning to develop Y1 expectations**	**1,2** **Embedding understanding of Y1 expectations**	**1.3** **Demonstrates mastery and application of Y1 expectations**
Geometry:			
• **properties of shapes**	Starts to recognise and name, with support: • 2D shapes e.g. rectangles, (including squares), circles and triangles • 3D shapes e.g. cuboids (including cubes), pyramids and spheres Compares and sorts common 2D and 3D shapes and related everyday objects with support if needed. .	Recognises and names • 2D shapes e.g. rectangles, (including squares), circles and triangles • 3D shapes e.g. cuboids (including cubes), pyramids and spheres Recognises shapes in different orientations and sizes and knows that rectangles, triangles, cuboids and pyramids are not always similar to each other. May need prompting to recognise some of these aspects. Compares and sorts common 2D and 3D shapes and related everyday objects.	Fluently recognises and names • 2D shapes e.g. rectangles, (including squares), circles and triangles • 3D shapes e.g. cuboids (including cubes), pyramids and spheres Recognises shapes in different orientations and sizes and knows that rectangles, triangles, cuboids and pyramids are not always similar to each other. Compares and sorts common 2D and 3D shapes and related everyday objects, explaining the criteria for sorting and suggesting their own ways to sort.
• **Position and direction**	Starts to use the language of position, direction and motion, including left / right / top / middle / bottom / on top of / in front of / above between / around / near / close / far / up / down / forwards / backwards / inside / outside. May need support. Starts to describe and use through practical activities the language of turning, including half, quarter and three quarter turns.	Developing confidence in the use of language to describe position, direction and movement, including left / right / top / middle / bottom / on top of / in front of / above between / around / near / close / far / up / down / forwards / backwards / inside / outside. More confident to describe and use through practical activities the language of turning, including half, quarter and three quarter turns. Starting to connect turning clockwise with the movements of hands on a clock face.	Confidently uses appropriate language to describe position, direction and movement, including left / right / top / middle / bottom / on top of / in front of / above between / around / near / close / far / up / down / forwards / backwards / inside / outside. Describes and uses the language of turning, including half, quarter and three quarter turns. Connects turning clockwise with the movements of hands on a clock face.