



Year 2 Programme of Study

Mathematics Mastery is fully aligned to the National Curriculum. Our Programmes of Study outline the objectives taught throughout the year in Mathematics Mastery lessons*.

*Some National Curriculum objectives are also further embedded during Maths Meetings, see Maths Meeting termly guidance [here](#).

Autumn	1. Number within 100 (2 weeks)	<ul style="list-style-type: none"> use place value and number facts to solve problems recognise the place value of each digit in a two-digit number (tens, ones) identify, represent and estimate numbers to 100 using different representations, including the number line compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs read and write numbers to at least 100 in numerals and in words count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward (<i>during transitions</i>)
	2. Addition and subtraction of 2-digit numbers (2 weeks)	<ul style="list-style-type: none"> recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot add and subtract numbers using 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
	3. Addition and subtraction word problems (2 weeks)	<ul style="list-style-type: none"> recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods
	4. Measures: length (2 weeks)	<ul style="list-style-type: none"> choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) to the nearest appropriate unit, using rulers and scales compare and order length and record the results using $>$, $<$ and $=$ use standard units of measurement with increasing accuracy, using their knowledge of the number system (to 100). They use the appropriate language and record using standard abbreviations (cm/m) (non-statutory)
	5. Graphs (1 week)	<ul style="list-style-type: none"> interpret and construct simple pictograms, tally charts, block diagrams and simple tables 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
	6. Multiplication and division (3 weeks)	<ul style="list-style-type: none"> calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers



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Spring	7. Time (2 weeks)	<ul style="list-style-type: none"> 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 compare and sequence intervals of time
	8. Fractions (2 weeks)	<ul style="list-style-type: none"> 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 write simple fractions for example, $\frac{1}{2}$ of 6 = 3 recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$
	9. Addition and subtraction of 2-digit numbers (regrouping and adjusting) (2 weeks)	<ul style="list-style-type: none"> recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot add and subtract numbers using 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 solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods
	10. Money (2 weeks)	<ul style="list-style-type: none"> 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
	11. Faces, shapes and patterns; lines and turns (3 weeks)	<ul style="list-style-type: none"> 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, [for example, a circle on a cylinder and a triangle on a pyramid] 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 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 three-quarter turns (clockwise and anticlockwise)



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Summer	12. Number within 1000 (1 week)	<ul style="list-style-type: none"> • use place value and number facts to solve problems • identify, represent and estimate numbers to 1000 using different representations (Y3 objective) • recognise the place value of each digit in a three-digit number (hundreds, tens, ones) (Y3 objective) • compare and order numbers up to 1000 (Y3 objective) • read and write numbers up to 1000 in numerals and in words (Y3 objective) • count from 0 in multiples of 100; find 10 or 100 more or less than a given number (Y3 objective)
	13. Measures: capacity and volume (2 weeks)	<ul style="list-style-type: none"> • choose and use appropriate standard units to estimate and measure capacity (litres/ml) and temperature ($^{\circ}\text{C}$) to the nearest appropriate unit, using scales, thermometers and measuring vessels • compare and order volume and capacity and record the results using $>$, $<$ and $=$ • use standard units of measurement with increasing accuracy, using their knowledge of the number system (to 1000). They use the appropriate language and record using standard abbreviations (litres/ml and $^{\circ}\text{C}$) (non-statutory)
	14. Measures: mass (1 week)	<ul style="list-style-type: none"> • choose and use appropriate standard units to estimate and measure mass (kg/g) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • compare and order mass and record the results using $>$, $<$ and $=$ • use standard units of measurement with increasing accuracy, using their knowledge of the number system (to 1000). They use the appropriate language and record using standard abbreviations (g/kg) (non-statutory)
	15. Exploring calculation strategies (2 weeks)	<ul style="list-style-type: none"> • recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 • show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot • add and subtract numbers mentally, including: a two-digit number and ones; a two-digit number and tens; adding three one-digit numbers • solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures, applying their increasing knowledge of mental and written methods
	16. Multiplicative thinking (2 weeks)	<ul style="list-style-type: none"> • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts • show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot • recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • practise their mental recall of multiplication tables when they are calculating mathematical statements in order to improve fluency. Through doubling, they connect the 2 and 4 multiplication tables. (Y3, non-statutory)