



Overview of Mathematics in Key Stage 2

Half Term	Year 3	Year 4	Year 5
Autumn 1	<ul style="list-style-type: none"> Addition and subtraction - multiple of 5 and 10 bonds to 100; 1-digit numbers to and from 2-digit numbers; 2-digit numbers; subtracting from 2- and 3-digit numbers Place value - 2- and 3- digit numbers Know \times & \div facts for 5, 10, 2, 4 and 3x-tables Count on/ back in 10s and 1s Doubling and halving Time – calendar (days, weeks, months, years) tell time to nearest 5 minutes on analogue & digital clocks; Properties of 3D shapes 	<ul style="list-style-type: none"> Addition and subtraction – bonds to 100; finding differences; 2-digit numbers mentally; 2- and 3-digit numbers written methods (expanded method for subtraction including decomposition in 1 column) Place value – 4-digit numbers Know \times & \div facts for 9x-table Multiplication – 2-digit by 1-digit numbers (grid) Fractions – fractions of amounts Time - to the minute on analogue and digital clocks; calculate time intervals Measure – conversion m, cm & mm 	<ul style="list-style-type: none"> Read, write, compare & order 5-digit numbers; use $<$ & $>$; $+$ and $-$ mentally & using written methods; Decimals - PV, multiply & divide by multiples of 10; add & subtract 0.1 & 0.01; Mental multiplication strategies Time - 24 hour clock; time intervals Length & perimeter; cm/m conversion Subtraction using counting up including decimals (£ context) Divisibility, factors & multiples. Fractions – equivalence & simplest form
Autumn 2	<ul style="list-style-type: none"> Double & halve numbers to 100 Fractions & fractions of numbers Addition and subtraction – money and 2- and 3-digit numbers Measure – length (cm); litres & ml Rounding & ordering 2- and 3-digit numbers Mental strategies – counting up subtraction; \times tables and \div facts; solving word problems mentally 	<ul style="list-style-type: none"> Double & halve numbers 3-digit numbers Fractions – equivalence, simplification; counting; link $\frac{1}{10}$ and decimals Addition – 4-digit numbers (standard method) Measure – conversion g/kg, l/ml Data – bar charts Rounding 4-digit numbers, (to 10, 100, 1000) Multiplication – grid and vertical (3-digit by 1-) Division – 2-digits by 1- (incl. remainders) 	<ul style="list-style-type: none"> Multiplication & division - mental & written methods, remainders as fractions/decimals Angle – including degrees on line, triangle etc Rounding & comparing large numbers and decimals; Fractions - simplifying; fraction & decimal equivalents; Inverse operations; function machines (addition, subtraction, multiplication & division)
Spring 1	<ul style="list-style-type: none"> Place value - 3-digit numbers Addition and subtraction – add 2- and 3- digit numbers informally; mental strategies (£) Multiplication and division – by 10 Count steps 10, 50 and 100. Multiples of 2, 3, 4, 5, and 10 Multiplication – $8\times$ table; mental strategies Fractions – $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, $\frac{1}{8}$; equivalence; fractions of amounts Angle - right angles & degrees ($^{\circ}$); angles in fractions of a turn 2-D shapes Perimeter 	<ul style="list-style-type: none"> Place value – 4-digit numbers; rounding Addition and subtraction – mental strategies involving 4-digit numbers (multiples of 10) Subtraction – expanded and compact methods, 3-digit numbers incl. decomposition Know \times & \div facts for 7x-table Multiplication – expanded column method for 3-digit by 1- Division using factor pairs Fractions – non-unit fractions; equivalence and simplification Geometry - acute, right and obtuse angles; perpendicular and parallel lines; symmetry; 2-D shapes 	<ul style="list-style-type: none"> PV larger numbers - 6-digit $+$ & $-$; $\times 10$, 100, 1000; rounding Divisibility & prime numbers; squares & square roots Properties of triangles Measurement conversions - g/kg, l/ml, m/km, km/miles Negative numbers in context of temperature



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Spring 2	<ul style="list-style-type: none"> Place value – 3-digits (partitioning & ordering) Addition – 2- and 3-digit numbers vertical written addition (expanded); 2-digit numbers mentally; select method Time - to the nearest minute on analogue & digital clocks (minutes past and minutes to); time events and calculate intervals; problems Subtraction - 3-digit numbers using counting up (Frog); mental strategies Double & halve numbers up to 100; problems Multiplication –grid method (numbers 10 to 25 by 1-digit numbers) Division - multiples of 10 by 1-digit numbers 	<ul style="list-style-type: none"> Place value – decimals; rounding decimals Multiplication and division – by 10 and 100, including decimals Addition – 4-digit numbers, total > 10,000 Money – solve problems with all 4 operations mentally and written methods; select method Subtraction – column subtraction (4-digits) Time – am/pm to 24-hour and vice versa Perimeter – rectilinear and composite shapes Multiplication - expanded column method for 3-digit by 1- Division - tables facts to divide 2-digit and 3-digit numbers by 1-digit (answers 10-35) 	<ul style="list-style-type: none"> Column addition and counting on subtraction of decimals 2-digit x 2-digit (Grid) Short division (HT1s by 1s), including remainders; fractions of numbers Short multiplication (HT1s x 1s) Properties of polygons, especially quadrilaterals, parallel & perpendicular Revise measure – weight, capacity, length Fractions - mixed numbers & improper fractions; multiply proper fractions by whole numbers; 4-digit subtraction by decomposition
Summer 1	<ul style="list-style-type: none"> Addition and subtraction – up to 3-digit/2-digit numbers mentally; multiples of 10 Fractions – order, add & subtract fractions with the same denominator; equivalences of $\frac{1}{2}$ Multiplication and division - function machines to multiply by 2, 3, 4, 5 and 8 and the inverse; multiples of 10 by 2, 3, 4 and 5; grid method (2-digit numbers x 3, 4, 5 and 8) Division using chunking, with remainders Data – bar charts & pictograms (multiple units) Measure – g and kg 	<ul style="list-style-type: none"> Place value – 5-digit numbers, Negative numbers (temperature) Decimals – x and ÷ by 10 and 100 using numbers up to 2 dp; rounding Know x & ÷ facts for 11 and 12x-table Multiplication – 3-digit numbers, expanded column method Roman numerals to 100; history of numbers Area – rectilinear and composite shapes 2-D & 3-D shapes – quadrilaterals & triangles Fractions – decimal equivalence $\frac{1}{10}$ and $\frac{1}{100}$ 	<ul style="list-style-type: none"> Addition and subtraction - money, especially mental strategies Multiplication of fractions by whole numbers Short & long x; decimals to 1000th; Co-ordinates, translation & reflection 2D & 3D shapes & nets Addition & Subtraction – 5-digit numbers
Summer 2	<ul style="list-style-type: none"> Standard column addition – 2- and 3- digits Subtraction – 3-digits counting up Word problems including measures; selecting operations and methods Geometry - horizontal, vertical, perpendicular, parallel & diagonal lines, angles & symmetry in 2D shapes; perimeter of 2D shapes Time – to the minute; 5, 10, 20 minutes later; am/pm and 24-hour clock times Multiplication – grid to multiply 2-digit numbers by 3, 4, 5, 6 & 8 Divide - chunking, with/without remainders Fractions – $\frac{1}{10}$ & equivalence, $\frac{1}{10}$ of numbers 	<ul style="list-style-type: none"> Addition and subtraction - 2-, 3- and 4-digit numbers (standard column methods including decomposition) and money to 2dp Factors of 2-digit numbers Co-ordinates, translation Data – bar and line graphs, pictograms Multiplication – expanded column method (3-digit by 1-); 2-digit numbers by numbers between 10 and 20 using grid Division – chunking linked to fractions; 2- and 3- digit by 1- using table facts, incl. remainders Fractions – addition of like denominators; find non-unit fractions of amounts 	<ul style="list-style-type: none"> Factors & multiples Fractions – equivalence, + and – when same denominators; fractions x whole numbers Short division including reminders (3- and 4-digit numbers) Long multiplication - standard written method Area/perimeter including formulae for squares & rectangles; Volume and capacity Fractions, decimals and %; Cubes and cube roots Data - line graphs and timetables Scaling problems