Maths Curriculum Map – Reception

Core Curriculum	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Match, sort and compare • Match objects Match pictures and objects • Identify a set • Sort objects to a type • Explore sorting techniques • Create sorting rules • Compare amounts **Talk about measure and pattern** • Compare size • Compare mass • Compare capacity • Explore simple patterns • Copy and continue simple patterns • Create simple patterns	**It's me – 1,2,3** • Find 1, 2 and 3 • Subitise 1, 2 and 3 • Represent 1, 2 and 3 • 1 more • 1 less Composition of 1, 2 and 3 **Circles and Triangles** • identify and name circles and triangles • Compare circles and triangles • Shapes in the environment • Describe position **1,2,3,4,5** • Find 4 and 5 • Subitise 4 and 5 • Represent 4 and 5 • 1 more 1 less Composition of 4 and 5 Composition of 1–5 **Shapes with 4 sides** • identify and name shapes with 4 sides • Combine shapes with 4 sides • Shapes in the environment • My day and night	**Alive in 5** • Introduce zero • Find 0 t0 5 • Subitise 0 to 5 • Represent 0 to 5 • 1 more • 1 less • Composition • Conceptual subitising to 5 **Mass and Capacity** • Compare mass • Find a balance • Explore capacity • Compare capacity **Growing 6,7,8** • Find 6,7 and 8 • Represent 6,7 and 8 • 1 more • 1 less • Composition of 6, 7 and 8 • Make pairs odd and even • Double to 8 (find a double) • Double to 8 (make a double) • Combine 2 groups • Conceptual subitising	**Length, Height and Time** • Explore length • Compare length • Explore height • Compare height • Talk about time • Order and sequence time **Building 9 and 10** • Find 9 and 10 • Compare numbers to 10 • Represent 9 and 10 • Conceptual subitising to 10 • 1 more • 1 less • Composition to 10 • Bonds to 10 (2 parts) • Make arrangements of 10 • Bonds to 10 (3 parts) **Explore 3-D Shapes** • Recognise and name 3-d shapes • Find 2-d shapes within 3-d shapes • Use 3-d shapes for tasks • 3-d shapes in the environment • Idnetify more complex patterns • Patterns in the environment	**To 20 and beyond** • Build numbers beyond 10 (10-13) • Continue patterns beyond 10 (10-13) • Build numbers beyond 10 (14-20) • Continue patterns beyond 10 (14-20) • Verbal counting beyond 20 • Verbal counting patterns **How many now?** • Add more • How many did I add? • Take away • How many did I take away? **Manipulate, compose and decompose** • Select shapes for a purpose • Rotate shapes • Manipulate shapes • Explain shape arrangements • Compose shapes • Decompose shapes • Copy 2-d shape pictures • Find 2-d shapes within 3-d shapes	**Sharing and Grouping** • Exploring sharing • Sharing • Explore grouping • Grouping • Even and odd sharing • Play with and build doubles **Visualise, build and map** • Identify units of repeating patterns • Create own pattern rules • Explore own pattern rules • Replicate and build scenes and constructions • Visualise from different positions • Describe positions • Give instructions to build • Explore mapping • Represent maps with models • Create own maps and plans from story situations **Make connections** • Deepen understanding • Patterns and relationships

Maths through Daily Routines	<u>**Number and Place Value (Securing Numbers, Ordering and Comparing):**</u> Counting forwards and backwards in 1s to 20 - teen numbers; Order a set of consecutive numbers to 10, subitising to 10. <u>**Addition and Subtraction (Multiples):**</u> Partitioning 3 or 4 objects in different ways; Number bonds to 5; Knowing 1 more / less than numbers to 5 / 10; Counting all-combining groups; Counting on to add from any number; Knowing 1 less than numbers to 5; Counting back to subtract <u>**Multiplication and Division (Doubling Numbers / Near Doubles):**</u> Double numbers to 5; Halve even numbers up to 10 by sharing
Vocabulary introduced in Reception	<u>**Number and Place Value:**</u> **number, zero 1-20 count on/back lots, more, few, fewer, compare, sort, order, before, after, less, many, most, the same as, ones, pair** <u>**Addition and Subtraction:**</u> **add, more, altogether, takeaway, number line, one more, one less, equals, equal to, double, half, how many? make, total** <u>**Fractions**</u>**: <u>double</u>, half, whole** <u>**Measure:**</u> **days of the week, week, month, year, weekend, birthday, holiday, morning, afternoon, evening, night, midnight, bedtime, dinnertime, playtime, today, yesterday, tomorrow, before, after, next, last, now, soon, early, late, quick, fast, slow, old, new, watch, clock, always, never, first, size, weight, capacity, time, money long, longer, longest, short, shorter, shortest, heavy, light, empty, full, tall, small, large, thick, thin, low, deep, ruler, far, near, holds, container, weigh, weighs coin, buy, sell, pay, price, how many?** <u>**Multiplication and Division:**</u> **times, counting in ones, twos, fives, tens, lots of, groups of, once, twice, five times sharing, share, set, group, left, left over** <u>**Geometry (Position and Direction):**</u> **position, distance, after, before, in, on, inside, under, on top of, behind, next to, above, below, top, bottom, side, outside, around, underneath, in front, front, back, before, middle, up, down, forwards, backwards, across, close, far, along, to, from, slide, roll, turn, stretch, bend, move.** <u>**Geometry (Properties of Shape):**</u> **shape, group, sort, round, flat, straight, make, build, draw. square, circle, triangle, cube, cuboid, sphere** <u>**General / Problem Solving:**</u> **listen, join in, say, think, imagine, remember, start from, start with, start at, look at, point to, put, place, fit, change, split, carry on, what comes next? find, choose, collect, use, make, build, tell me, pick out, talk about, explain, show me read, write, finish, copy, colour, tick, cross, draw, draw a line between, join (up), ring, arrow, count, work out, answer, fill in, check, in order, every, each.**
15 Minute Maths in Reception	<u>MASTERING NUMBER PROGRAMME</u>

Maths Curriculum Map – Year 1

Core Curriculum	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Number: Place Value (within 10) • Sort objects • Count objects • Count objects from a larger group • Represent objects • Recognise numbers as words • Count on from any number • 1 more • Count backwards within 10 • 1 less • Compare groups by matching Fewer, more, same • Less than, greater than, equal to • Compare numbers • Order objects and numbers • The number line	**Number: Addition and Subtraction (within 10)** • Introduce parts and wholes Part-whole model • Write number sentences • Fact families – addition facts Number bonds within 10 • Systematic number bonds within 10 • Number bonds to 10 • Addition – add together • Addition – add more • Addition problems • Find a part • Subtraction – find a part • Fact families – the eight facts • Subtraction – take away/cross out (How many left?) • Take away (How many left?) Subtraction on a number line Add or subtract 1 or 2 **Geometry: Shape** • Recognise and name 3-D shapes • Sort 3-D shapes • Recognise and name 2-D shapes • Sort 2-D shapes • Patterns with 2-D and 3-D shapes	**Number: Place Value (within 20)** • Count within 20 Understand 10 Understand 11, 12 and 13 • Understand 14, 15 and 16 • Understand 17, 18 and 19 • Understand 20 • 1 more and 1 less • The number line to 20 Use a number line to 20 • Estimate on a number line to 20 • Compare numbers to 20 • Order numbers to 20 **Number: Addition and Subtraction (within 20)** • Add by counting on within 20 • Add ones using number bonds • Find and make number bonds to 20 • Doubles • Near doubles • Subtract ones using number bonds • Subtraction – counting back • Subtraction – finding the difference • Related facts Missing number problems	**Number Place Value (within 50)** • Count from 20 to 50 • 20, 30, 40 and 50 • Count by making groups of tens • Groups of tens and ones • Partition into tens and ones • The number line to 50 • Estimate on a number line to 50 • 1 more, 1 less **Measurement: Length and Height** • Compare lengths and heights • Measure length using objects • Measure length in centimetres **Measurement: Mass and Capacity** • Heavier and lighter Measure mass Compare mass • Full and empty Compare volume Measure capacity Compare capacity	**Number: Multiplication and Division** • Count in 2s • Count in 10s • Count in 5s • Recognise equal groups Add equal groups • Make arrays • Make doubles • Make equal groups – grouping • Make equal groups – sharing **Number: Fractions** • Recognise a half of an object or a shape • Find a half of an object or a shape • Recognise a half of a quantity • Find a half of a quantity Recognise a quarter of an object or a shape • Find a quarter of an object or a shape Recognise a quarter of a quantity • Find a quarter of a quantity **Geometry: Position and Direction** • Describe turns • Describe position – left and right • Describe position – forwards and backwards Describe position – above and below • Ordinal numbers	**Number: Place Value (within 100)** • Count from 50 to 100 tens to 100 • Partition into tens and ones • The number line to 100 • 1 more, 1 less Compare numbers with the same number of tens • Compare any two numbers **Measurement: Money** • Unitising • Recognise coins Recognise notes • Count in coins **Measurement: Time** • Before and after • Days of the week • Months of the year Hours, minutes and seconds • Tell the time to the hour • Tell the time to the half hour

Vocabulary introduced in Year 1	**Number and Place value:** 20-100 count (on/up/to/from/ down), least, fewest, smallest, greater, lesser, equal to, odd, even, units, tens, ten more/less, digit, numeral, figure(s), compare (In) order/a different order, size, value, between, halfway between, above, below.
	Addition and subtraction: number bonds, addition, plus, sum, greater, inverse, near double, halve, is the same as, (including equals sign), difference between, how many more to make..?, how, many more is…than..?, how much more is..? subtract, minus, how many fewer is…than..?, how much less is..?
	Fractions: whole, equal parts, four equal parts, one half, two halves, a quarter, two quarters.
	Measurement: size, bigger, larger, length, width, height, depth, taller, tallest, high, higher, highest, wide, narrow, shallow, close, Metre, metre stick. half full, balances, heavier, heaviest, lighter, lightest, scales.
	Measurement (Time): Seasons (Spring, Summer, Autumn, Winter) quicker, quickest, quickly, faster, fastest, slower, slowest, slowly, older, oldest, newer, newest, takes longer, takes less time, hour, o clock, half past, hands, how long ago? how long will it be to…? how long will it take to…? how often? often, sometimes, usually, once, twice, second, third etc, estimate, close to, about the same as, just over/under, too many/few, not enough, enough. spend, spent, change, dear(er), costs more, costs less, cheaper, costs the same as, how much?
	Multiplication and Division: odd, even, count in twos, fives, tens, (forwards from/backwards from), how many times?, multiple of, multiply, multiply by repeated addition, array, row, column, halve, share equally, group in pairs, threes, etc. equal groups of, divide, divided by
	Geometry (Position and Direction): over, beside, opposite, apart, between, edge, centre, corner, direction, journey, left, right, sideways, near, through, towards, away from, movement, whole turn, half turn.
	Geometry (Properties of Shape): pyramid, cone, cylinder. curved, hollow, solid, corner (point, pointed) face, side, edge.
	General / Problem Solving: arrange, rearrange, change over, separate, continue, repeat, describe, explain, record, trace, complete, shade, same number(s)/different number(s)/missing number(s) number facts, same way, different way, best way, another way, in a different order, not all.

15 Minute Maths in Year 1 MASTERING NUMBER (Multiplication)	**MASTERING NUMBER PROGRAMME**			
	Multiplication Count in 2s to 24 link even and odd numbers Count in 10s in order up to 120	**Multiplication** Count in multiples of 5 up to 60 Count in 2s and 10s	**Multiplication** Count in multiples of 10, 2 and 5 fluently	**Multiplication** Count in multiples of 10, 2 and 5 fluently

Maths Curriculum Map – Year 2

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Core Curriculum	**Number: Place Value** • Numbers to 20 • Count objects to 100 by making 10s • Recognise tens and ones • Use a place value chart • Partition numbers to 100 Write numbers to 100 in words • Flexibly partition numbers to 100 • Write numbers to 100 in expanded form Small steps • 10s on the number line to 100 • 10s and 1s on the number line to 100 • Estimate numbers on a number line • Compare objects • Compare numbers • Order objects and numbers • Count in 2s, 5s and 10s • Count in 3s **Number: Addition and Subtraction** • Bonds to 10 • Fact families - addition and subtraction bonds within 20 • Related facts • Bonds to 100 (tens) • Add and subtract 1s • Add by making 10 • Add three 1-digit numbers • Add to the next 10 • Add across a 10 • Subtract across 10 Subtract from a 10 Subtract a 1-digit number from a 2-digit number (across a 10) • 10 more, 10 less	**Number: Addition and Subtraction** • Add and subtract 10s Add two 2-digit numbers (not across a 10) • Add two 2-digit numbers (across a 10) • Subtract two 2-digit numbers (not across a 10) • Subtract two 2-digit numbers (across a 10) Mixed addition and subtraction • Compare number sentences • Missing number problems **Geometry: Properties of Shape** • Recognise 2-D and 3-D shapes • Count sides on 2-D shapes • Count vertices on 2-D shapes • Draw 2-D shapes • Lines of symmetry on shapes • Use lines of symmetry to complete shapes Sort 2-D shapes • Count faces on 3-D shapes • Count edges on 3-D shapes • Count vertices on 3-D shapes • Sort 3-D shapes • Make patterns with 2-D and 3-D shapes	**Measurement: Money** • Count money – pence • Count money – pounds (notes and coins) • Count money – pounds and pence • Choose notes and coins Make the same amount Compare amounts of money • Calculate with money Make a pound • Find change • Two-step problems **Number: Multiplication and Division** • Recognise equal groups • Make equal groups • Add equal groups • Introduce the multiplication symbol • Multiplication sentences • Use arrays • Make equal groups – grouping • Make equal groups – sharing • The 2 times-table • Divide by 2 • Doubling and halving • Odd and even numbers	**Number: Multiplication and Division** • The 10 times-table • Divide by 10 • The 5 times-table • Divide by 5 • The 5 and 10 times-tables **Measurement: Length and Height** • Measure in centimetres • Measure in metres • Compare lengths and heights • Order lengths and heights • Four operations with lengths and heights **Measurement: Mass, Capacity and Temperature** • Compare mass • Measure in grams • Measure in kilograms • Four operations with mass • Compare volume and capacity • Measure in millilitres Measure in litres • Four operations with volume and capacity • Temperature	**Number: Fractions** • Introduction to parts and whole • Equal and unequal parts Recognise a half Find a half • Recognise a quarter Find a quarter Recognise a third • Find a third • Find the whole • Unit fractions • Non-unit fractions • Recognise the equivalence of a half and two-quarters Recognise three-quarters • Find three-quarters Count in fractions up to a whole **Measurement: Time** • O'clock and half past • Quarter past and quarter to • Tell the time past the hour • Tell the time to the hour • Tell the time to 5 minutes • Minutes in an hour • Hours in a day	**Statistics** • Make tally charts • Tables • Block diagrams • Draw pictograms (1–1) Interpret pictograms (1–1) • Draw pictograms (2, 5 and 10) • Interpret pictograms (2, 5 and 10) **Geometry: Position and Direction** • Language of position Describe movement Describe turns • Describe movement and turns • Shape patterns with turns

Vocabulary introduced in Year 2	<u>Number and Place Value:</u> numbers to one hundred, hundreds, partition, recombine, hundred more/less, represents, exchange, <u>Statistics:</u> count, tally, sort, vote, graph, block graph, pictogram, represent group, set, list, table label, title most popular, most common, least popular, least common <u>Fractions:</u> three quarters, one third, a third, equivalence, equivalent. <u>Measurement:</u> quarter past/to, fortnight temperature (degrees) m/cm, g/kg, ml/l <u>Multiplication and Division:</u> count in multiples of 3 <u>Geometry (Position and Direction):</u> rotation, clockwise, anticlockwise, straight line, ninety degree turn, right angle. <u>Geometry (Properties of shape):</u> smaller, symmetrical, line of symmetry, fold, match, mirror line, reflection, pattern, repeating pattern, vertices, vertex. pentagon, hexagon, octagon, circular, triangular, right angle. <u>General/Problem Solving:</u> predict, describe the pattern, describe the rule, find, find all, find different, investigate.

15 Minute Maths in Year 2 MASTERING NUMBER (Multiplication)	**MASTERING NUMBER PROGRAMME**					
	Multiplication **Consolidate 2,5,10 in order up to 12X**	**Multiplication** **Count fluently from 0 in 2,5 and 10** **Recall multiples of 10 up to 12x10 in any order including missing numbers and division facts**	**Multiplication** **Recall multiples of 2 up to 12x2 in any order including missing numbers and division facts** **Recall multiples of 10 fluently**	**Multiplication** **Recall multiples of 5 up to 12x5 in any order including missing numbers and division facts** **Recall multiples of 2 fluently including division facts**	**Multiplication and Division** **Multiplication sentences using x symbol** **Make doubles** **Make equal groups-sharing and grouping** **Divide by 2** **Odd and even numbers** **Multiplication** **Count in multiples of 4 up to 12x4 in order from 0 – Relate to doubling 2** **Recall multiples of 2 fluently including division facts** **Recall multiples of 5 fluently including division facts**	**Multiplication** **Count in multiples of 4 up to 12x4 in order from 0** **Recall multiples of 5 up to 12x5 fluently and related division facts**

Maths Curriculum Map – Year 3

Core Curriculum	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Number: Place Value • Represent numbers to 100 • Partition numbers to 100 • Number line to 100 • Hundreds • Represent numbers to 1,000 • Partition numbers to 1,000 • Flexible partitioning of numbers to 1,000 • Hundreds, tens and ones • Find 1, 10 or 100 more or less • Number line to 1,000 • Estimate on a number line to 1,000 • Compare numbers to 1,000 • Order numbers to 1,000 • Count in 50s **Number: Addition and Subtraction** • Apply number bonds within 10 • Add and subtract 1s • Add and subtract 10s • Add and subtract 100s • Spot the pattern • Add 1s across a 10 • Add 10s across a 100 • Subtract 1s across a10 • Subtract 10s across a 100 • Make connections • Add two numbers (no exchange) • Subtract two numbers (no exchange) • Add two numbers (across a 10) • Add two numbers (across a 100) •	**Number: Addition and Subtraction** • Subtract two numbers (across a 10) • Subtract two numbers (across a 100) • Add 2-digit and 3-digit numbers • Subtract a 2-digit number from a 3-digit number • Complements to 100 • Estimate answers • Inverse operations • Make decisions **Number: Multiplication and Division** • Multiplication – equal groups • Use arrays • Multiples of 2 • Multiples of 5 and 10 Sharing and grouping Multiply by 3 • Divide by 3 • The 3 times-table Multiply by 4 • Divide by 4 • The 4 times-table Multiply by 8 • Divide by 8 • The 8 times-table • The 2, 4 and 8 times-tables	**Number: Multiplication and Division** • Multiples of 10 • Related calculations • Reasoning about multiplication • Multiply a 2-digit number by a 1-digit number – no exchange • Multiply a 2-digit number by a 1-digit number – with exchange • Link multiplication and division • Divide a 2-digit number by a 1-digit number – no exchange • Divide a 2-digit number by a 1-digit number – flexible partitioning • Divide a 2-digit number by a 1-digit number – with remainders • Scaling • How many ways? **Measurement: Length and Perimeter** • Measure in metres and centimetres • Measure in millimetres • Measure in centimetres and millimetres Metres, centimetres and millimetres • Equivalent lengths (metres and centimetres) • Equivalent lengths (centimetres and millimetres) • Compare lengths • Add lengths • Subtract lengths • What is perimeter? • Measure perimeter • Calculate perimeter	**Number: Fractions** • Understand the denominators of unit fractions • Compare and order unit fractions • Understand the numerators of non-unit fractions • Understand the whole • Compare and order non-unit fractions • Fractions and scales • Fractions on a number line • Count in fractions on a number line • Equivalent fractions on a number line • Equivalent fractions as bar models **Measurement: Mass and Capacity** • Use scales • Measure mass in grams • Measure mass in kilograms and grams • Equivalent masses (kilograms and grams) • Compare mass • Add and subtract mass • Measure capacity and volume in millilitres • Measure capacity and volume in litres and millilitres • Equivalent capacities and volumes (litres and millilitres) • Compare capacity and volume • Add and subtract capacity and volume	**Number: Fractions** • Add fractions • Subtract fractions • Partition the whole Unit fractions of a set of objects • Non-unit fractions of a set of objects • Reasoning with fractions of an amount **Measurement: Money** • Pounds and pence • Convert pounds and pence • Add money • Subtract money • Find change **Measurement: Time** • Roman numerals to 12 • Tell the time to 5 minutes • Tell the time to the minute • Read time on a digital clock • Use am and pm • Years, months and days • Days and hours • Hours and minutes – use start and end times • Hours and minutes - use durations • Minutes and seconds • Units of time • Solve problems with time	**Geometry: Properties of Shape** • Turns and angles • Right angles • Compare angles Measure and draw accurately • Horizontal and vertical Parallel and perpendicular Recognise and describe 2-D shapes • Draw polygons Recognise and describe 3-D shapes • Make 3-D shape **Statistics** • Interpret pictograms • Draw pictograms • Interpret bar charts • Draw bar charts • Collect and represent data • Two-way tables

Vocabulary introduced in Year 3	**Number and Place Value:** numbers to 1,000 **Addition and subtraction:** column addition and subtraction **Fractions:** numerator, denominator, unit fraction, non-unit fraction, compare and order, tenths **Measurement:** leap year twelve-hour/24- hour clock, am/pm, century roman numerals I-XII mm **Multiplication and Division:** count in multiples of 4, 8 and 11, product, scale up **Geometry (Position and Direction):** greater/less than 90 degrees orientation (same orientation, different orientation), north, south, east, west **Geometry (Properties of Shape):** horizontal, vertical, perpendicular and parallel lines. perimeter hemi-sphere, prism, semi-circle **Statistics:** chart, bar chart, frequency table, Carroll diagram, Venn diagram, axis, axes diagram					
10 Minute Maths in Year 3 (MATHS BLAST) Retrieval/ Arithmetic Fluency (Multiplication)	**Number and Place Value (Securing Numbers, Ordering and Comparing):** **Count in 100, 10s, 1s from any number to 1000;** **Order a set of random numbers to 1000;** **Compare numbers using symbols < > and = up to 1000** **Number and Place Value (Counting):** **Add 100 to any 2 / 3digit number** e.g., 45 + 100, 145 + 100; **Add multiples of 100 to any 2 / 3 digit number** 45 + 200, 145 + 200, 145 + 700 (regrouping) **Counting** **Count from 0 in multiples of 4,8,50 and 100** **Find 10 or 100 more or less than a given number** **Multiplication** **Count in multiples of 2 up to 12x2 in any order including missing numbers and division facts.** **Count in multiples of 4 up to 12x4 in order from 0 with growing fluency**	**Addition and Subtraction (Multiples):** **Add any multiple of 10 to a 2/3 digit number** e.g. 153 + 20, 153 + 70 (regrouping); **Subtract any multiple of 10 from a 2/3 digit number,** e.g. 153 – 20, 153 – 70 (regrouping) **Counting in 10s** e.g. Use number bonds/partitioning 153 – (50 + 20); **To subtract many amounts, combine to add first in context**. Eg £1 - (20p – 30p), £1 – 50p **Multiplication** **Recall multiples of 4 up to 12x4 in any order, missing numbers and division facts** **Introduce (relating to 4) and begin to count multiples of 8 from 0 to 12x8**	**Addition and Subtraction (Adding / Subtracting 10's, 100's, 1000's):** **Add 10 to any number**, 43 + 10, 143 + 10, **Add multiples of 10 to any number** e.g. 43+ 30 (no regrouping), 43 + 70 (regrouping), 143 + 30 (no regrouping), 143 + 70 (regrouping); **Explain effects of adding 10. Why do 1s not change when adding 10s? When will 100s change?;** **Add near multiples of 10** e.g. + 99, 31, 29 etc including in simple money context e.g. 99p, £1.99 **Multiplication** **Recall multiples of 4 up to 12x4 in any order, missing numbers and division facts** **Count in multiples of 8 to 12x8 in any order**	**Addition and Subtraction Mental (+ -)** **Add and subtract numbers mentally, including:** - A three digit number and 1s - A three digit number and 10s - A three digit number and 100s **Multiplication** **Recall multiples of 4 up to 12x4 in any order, missing numbers and division facts** **Count in multiples of 8 to 12x8 in any order**	**Multiplication and Division (Doubling Numbers / Near Doubles):** **Doubles of multiples of 10/near10s 60 + 60, 60 + 70;** **Review doubling/halving multiples of 10 with odd number of 10s by partitioning and recombining** e.g. half of 30, 50, 70, 30 = 20+10, Half is 10 + 5 = 15; **Double simple 3 digit numbers (multiples of 10, 50, 100)** e.g. double 200, double 250 **Multiplication** **Recall multiples of 4 up to 12x4 in any order, missing numbers and division facts** **Recall multiples of 8 up to 12x8 in any order, missing numbers and division facts**	**Fractions and Decimals** **Count up and down in tenths** **Add and subtract fractions with the same denominator within one whole** **Multiplication and Division (Order of Operations):** **Multiplication and division of whole numbers by 10 exploring the effect of moving digits** e.g. 6 x 10, 10 x 10, 16 x 10; **Use known facts to multiply and divide by multiples of 10** e.g. 6 x 3, 6 x 30 **Knowledge of doubling** e.g. double 4x table = 8x;; **Link to measure and reading scales** e.g. 50p x 2 = £1.00, £50 x 2 = £100, 25p x 4 = £1.00 £25 x 4 = £100, 20p x 5 = £1.00 , 1000g = 1kg 1000ml = 1l , 1000cm = 1km, 1000 ÷ 2 = 500 1000 ÷ 4 = 250, ½ l/kg/km = 500, ¼ l/kg/km = 250, ¾ l/kg/km = 750 **Multiplication** **Recall multiples of 8 up to 12x8 in any order, missing numbers and division facts** **Introduce counting in 3s and multiples of 3**

Maths Curriculum Map – Year 4

Core Curriculum	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Number: Place Value	**Measurement: Area**	**Number: Multiplication and Division**	**Number: Fractions**	**Number: Decimals**	**Geometry: Properties of Shape**
	• Represent numbers to 1,000	• What is area?	• Factor pairs	• Understand the whole	• Make a whole with tenths	• Understand angles as turns
	• Partition numbers to 1,000	• Count squares	• Use factor pairs	• Count beyond 1	• Make a whole with hundredths	• Identify angles
	• Number line to 1,000	• Make shapes	• Multiply by 10	• Partition a mixed number	• Partition decimals	• Compare and order angles
	• Thousands	• Compare areas	• Multiply by 100	• Number lines with mixed numbers	• Flexibly partition decimals	• Triangles Quadrilaterals
	• Represent numbers to 10,000	**Number: Multiplication and Division**	• Divide by 10	• Compare and order mixed numbers	• Compare decimals	• Polygons
	Partition numbers to 10,000	• Multiples of 3	• Divide by 100	• Understand improper fractions	• Order decimals	• Lines of symmetry
	• Flexible partitioning of numbers to 10,000	• Multiply and divide by 6	• Related facts – multiplication and division	• Convert mixed numbers to improper fractions	• Round to the nearest whole number	• Complete a symmetric figure
	• Find 1, 10, 100, 1,000 more or less Number line to 10,000	• 6 times-table and division facts	• Informal written methods for multiplication	• Convert improper fractions to mixed numbers	• Halves and quarters as decimals	**Statistics**
	• Estimate on a number line to 10,000 Compare numbers to 10,000	• Multiply and divide by 9	• Multiply a 2-digit number by a 1-digit number	• Equivalent fractions on a number line	**Measurement: Money**	• Interpret charts Comparison, sum and difference
	• Order numbers to 10,000	• 9 times-table and division facts	• Multiply a 3-digit number by a 1-digit number	• Equivalent fraction families	• Write money using decimals	• Interpret line graphs
	• Roman numerals	• The 3, 6 and 9 times-tables	• Divide a 2-digit number by a 1-digit number (1)	• Add two or more fractions	• Convert between pounds and pence	• Draw line graphs
	• Round to the nearest 10	• Multiply and divide by 7	• Divide a 2-digit number by a 1-digit number (2)	• Add fractions and mixed numbers	• Compare amounts of money	**Geometry: Position and Direction**
	• Round to the nearest 100	• 7 times-table and division facts	• Divide a 3-digit number by a 1-digit number	• Subtract two fractions	• Estimate with money	• Describe position using coordinates
	• Round to the nearest 1,000	• 11 times-table and division facts	• Correspondence problems	• Subtract from whole amounts	• Calculate with money	• Plot coordinates
	• Round to the nearest 10, 100 or 1,000	• 12 times-table and division facts	• Efficient multiplication	• Subtract from mixed numbers	• Solve problems with money	• Draw 2-D shapes on a grid
	Number: Addition and Subtraction	• Multiply by 1 and 0	**Measurement: Length and Perimeter**	**Number: Decimals**	**Measurement: Time**	• Translate on a grid
	• Add and subtract 1s, 10s, 100s and 1,000s	• Divide a number by 1 and itself	• Measure in kilometres and metres	• Tenths as fractions	• Years, months, weeks and days	**Step 1 Describe position using coordinates Step 2 Plot coordinates Step 3 Draw 2-D shapes on a grid Step 4 Translate on a grid Step 5 Describe translation on a grid**Describe translation on a grid
	• Add up to two 4-digit numbers – no exchange	• Multiply three numbers	• Equivalent lengths (kilometres and metres)	• Tenths as decimals	• Hours, minutes and seconds	
	• Add two 4-digit numbers – one exchange		• Perimeter on a grid	• Tenths on a place value chart	• Convert between analogue and digital times	
	• Add two 4-digit numbers – more than one exchange		• Perimeter of a rectangle	• Tenths on a number line	• Convert to the 24-hour clock	
	• Subtract two 4-digit numbers – no exchange		• Perimeter of rectilinear shapes	• Divide a 1-digit number by 10	• Convert from the 24-hour clock	
	• Subtract two 4-digit numbers – one exchange		• Find missing lengths in rectilinear shapes	• Divide a 2-digit number by 10		
	• Subtract two 4-digit numbers – more than one exchange		• Calculate perimeter of rectilinear shapes	• Hundredths as fractions		
	• Efficient subtraction		• Perimeter of regular polygons	• Hundredths as decimals		
	• Estimate answers		• Perimeter of polygons	• Hundredths on a place value chart		
	• Checking strategies			• Divide a 1- or 2-digit number by 100		

Vocabulary introduced in Year 4	**Number and Place value:** tenths, hundredths, numeral decimal places round (to nearest) thousand more / less negative integers count through zero roman numerals I to C **Multiplication and Division:** count in multiples of 6, 7, 9, 12, inverse, derive division facts **Fractions:** equivalent fractions and decimals, decimal point, decimal fraction hundredths **Geometry (Position and Direction):** co-ordinates translation, translate, quadrant x-axis, y-axis **Geometry (Properties of Shape):** area, net rectilinear adjacent quadrilaterals: (rhombus, parallelogram, trapezium, trapezoid, kite). heptagon, polygon, tetrahedron, polyhedron, cylindrical triangles (isosceles, scalene) right angle, acute angle, obtuse angles **Measurement:** convert, noon **Statistics:** continuous data, line graphs

| **10 Minute Maths in Year 4 (MATHS BLAST) Retrieval/ Arithmetic Fluency (Multiplication)** | **Number and Place Value (Securing Numbers, Ordering and Comparing):** Count in 1s across boundaries 1000, 10,000, 100,000; Order a set of random numbers to 100,000; Compare numbers using symbols < and < up to 100,000 **Counting** Count in multiples of 6,7,9, 25 and 1000 Find 1000 more or less than a given number through zero to include negative numbers **Multiplication** Recall multiples of 3, 4 and 8 up to 12 x in any order including missing numbers and related division facts fluently Fluently count in 6s up to 12x6 | **Number and Place Value (Counting):** Count in 10, 100s, 1000s forwards and backwards across boundaries 1000, 10,000, 100,000; What is 10, 100, 1000 more/less than ….?; Round any number to the nearest 10, 100 or 1 000; **Addition and Subtraction (Multiples):** Add any multiple of 10 to a 4-digit number e.g.,2153 + 20, 2153 + 70 (regrouping); Add any multiple of 100 to a 4-digit number e.g.2153 + 100, 2153 + 300, 2153 + 900 (regrouping) **Written (+ -)** Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate **Multiplication** Introduce 6s in order up to 12x6 Relate to multiples of 3 Fluently count in 9s in order up to 12x9 | **Fractions and decimals** Count up and down in hundredths Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten **Written (+ -)** Multiply two and three digit numbers by a one digit number using formal written layout **Multiplication** Recall multiples of 6 in any order missing boxes and division Recall multiples of 9 and order including missing numbers and division facts fluently Fluently count in 7s in order up to 12x7 | **Multiplication and Division (Doubling Numbers / Near Doubles):** Near doubles to multiple of 10 e.g., 60 + 59; Double simple 3-digit numbers by recall of known facts or partitioning and recombining (multiples of 10, 50, 100) e.g. double 200, double 250, double 220, half of 140. **Multiplication and Division (Order of Operations):** Multiplication and division of whole numbers by 10 and 100 and multiples of e.g.,6 x 100, 10 x 100.. **Distributive law** e.g.,39 x 7= 30 x 7+ 9 x 7; **Associative law and reordering calculations to make it easier, expressing equal calculations** e.g. 2 x 6 x 5 = 10 x 6; **Multiply by 50 by multiply by 100 and halving** e.g. 23 x 50= half of 23 x 100; **Know all the table facts and the related division facts** e.g. 500 x 2 = 1000, 1000 ÷ 2 = 500, 250 x 4 = 1000, 1000 ÷ 4 = 250, 200 x 5 = 1000, 1000 ÷ 5 = 200; **Multiplication** Recall multiples of 7 and order including missing numbers and division facts fluently Fluently count in 11s in order up to 12x12 | **Number and Place Value (Counting):** Round decimals with one decimal place to the nearest whole number **Multiplication and Division (Rounding and Adjusting):** Rounding and adjusting decimals in context of money e.g, 3 items costing 99p or £1.99 **Mental / Written (x ÷)** Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; Multiply together three numbers Recognise and use factor pairs and commutativity in mental calculations **Multiplication** Recall multiples of 7 and 11 in any order. Fluently count in 12s **MULTIPLICATION TABLES CHECK** | **Fractions and decimals** Add and subtract fractions with the same denominator Find the effect of dividing a one or two digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths Count up and down in hundredths; compare numbers with the same number of decimal places up to two decimal places; round decimals with one decimal place to the nearest whole number; recognise and write decimal equivalents of any number of tenths or hundredths, recognise and write decimal equivalents to 1/4; 1/2; 3/4 **Multiplication** Recall multiples of 12 in any order. **END OF YEAR SECURE IN ALL 12 TIMES TABLES** |