

Mill Lane Primary School – Maths Overview Document LKS2

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| Year 3 |

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| **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| 1 Place value   |  1Multiplication and DivisionMultiplication tables | 3 Place valueMental addition and subtraction | 2 Geometry2D and 3D shape, including sorting | 6 Multiplication and Division | 4 Place value (using measures) |
| 2 Place value and mental calculation  | 2Multiplication and DivisionWritten & mental multiplication | 1 Fractions | 3 Addition and subtraction (using statistics) | 4 Addition and subtractionDecimals (money) | 6 Addition and subtractionProblems |
| 1 MeasuresPerimeter | 3Multiplication and DivisionWritten & mental division | 2 Fractions &Division | 3 Fractions | 5 Addition & Subtraction (using measures) | 4 Fractions  |
|  1 StatisticsMental calculation |  2 MeasuresTime | 3 MeasuresLength, Mass & Volume | 3 GeometryAngles  | 7Multiplication and division (using measures) | 6 MeasuresGeneral |
| 1 Addition & SubtractionWritten Addition  |  1 Geometry3D shape | 4 Multiplication and Division | 4 MeasuresTime | 5 MeasuresTime | 2 Statistics  |
| 2 Addition & SubtractionWritten Subtraction | Consolidate and Assess | 5 Multiplication and Division (using measures and money) | Consolidate and Assess | 5 GeometryProperties  | Consolidate and Assess. |

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| Year 3: Autumn 1 |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| 1 Place Value  | 2 Place Value | 1 MeasuresPerimeter | 1 Statistics | 1 Addition and Subtraction | 2 Addition and Subtraction |
| Count from 0 in multiples of 4, 8, 50 and 100.Find 10 or 100 more or less than a given number. | Read and write numbers to 1,000 in numerals and words | Measure the perimeter of simple 2D shapes. | Interpret and present data using:* bar charts
* pictograms
* tables
 | Add and subtract numbers mentally, including:* 3-digit number & ones
* 3-digit numbers & tens
* 3-digit numbers & hundreds
 | Add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction.  |
| * Count on and back in 10s from 0 to 1000
* Count on and back in 100s from 0 to 1000
* Count on and back in 50s from 0 to 1000
* Count on and back in 4s from 0 to 1000
* Count on and back in 8s from 0 to 1000
* Find 10 more than a given number between 0 and 1000
* Find 10 less than a given number between 0 and 1000
* Find 100 more than a given number between 0 and 1000
* Find 100 less than a given number between 0 and 1000
 | * Read all numbers from 100 to 1000 in numerals
* Write all numbers from 100 to 1000 in numerals
* Read all numbers from 100 to 1000 in words
* Write all numbers from 100 to 1000 in words
 | * Know the term ‘perimeter’
* Know that the perimeter is the distance around the sides of a shape
* Understand that the perimeter refers to distance in real life contexts, e.g. football pitch
* Measure accurately each side of 2D shapes and add lengths to find the perimeter
 | * Read information set out in a bar chart
* Read information set out in a pictogram
* Read information set out in a table
* Read information from a bar chart that has a scale on the vertical axis
* Present information in a table
* Present information in a bar chart
* Present information in a pictogram
* Present information in a bar chart where there is a scale on the vertical axis
 | Mentally:* Subtract any 1-digit number from a greater 1–digit number
* Add any 3-digit number to a 1-digit number
* Subtract a 1-digit number from a 3-digit number
* Add any 3-digit number to a 10s number
* Subtract a 10s number from any 3-digit number
* Add any 3-digit number to any 100s number.
* Subtract any 100s number from a 3-digit number
 | * Add two 2-digit numbers using columnar addition without exchanging.
* Subtract a 2-digit number from a 2-digit number without exchanging.
* Add two 3-digit numbers using columnar addition without exchanging.
* Subtract a 2 or 3-digit number from a 3-digit number without exchanging.
* Add two 2-digit numbers where the units make more than 10
* Add two 3-digit numbers where the units and/or tens make more than 10
* Subtract a 2-digit number from a 2-digit number where exchanging is required
* Subtract a 2-digit number from a 3-digit number where exchanging is required
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| Year 3: Autumn 2 |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| 1 Multiplication & Division | 2 Multiplication & Division | 3 Multiplication & Division | 2 MeasuresTime | 1 Geometry3D Shape | Consolidate and Assess |
| * Recall and use the multiplication and division facts for the 3, 4 and 8 tables.
 | * Write and calculate mathematical statements for multiplication using known multiplication tables, including 2-digit x 1-digit, using mental and progressing to formal written methods.
 | * Write and calculate mathematical statements for division using known multiplication tables, including 2-digit x 1-digit, using mental and progressing to formal written methods.
 | * Estimate and read time with increasing accuracy to the nearest minute;
* Tell and write the time from an analogue clock, including using Roman numerals from I to XII
*
 | * Make 3D shapes using modelling materials; recognise 3D shapes in different orientations; & describe them
 | Start this week by using the warm ups outlined in the ‘Upside down and Inside out’ section of this publication so as to ensure pupils are fluent and secure with their basic skills. Use a simple assessment process to check on pupils’ confidence and consistency in using the learning outlined in the Autumn term. |
| * Count in 3s; forward and backwards.
* Recite the x3 table up to x12, without error.
* Answer any calculation involving x3, out of order.
* Know that 2x3 is the same as 3x2 etc..
* Answer any calculation involving ÷3, out of order.
* Count in 4s; forward and backwards.
* Recite the x4 table up to x12, without error.
* Answer any calculation involving x4, out of order.
* Know that 3x4 is the same as 4x3 etc..
* Answer any calculation involving ÷4, out of order.
* Count in 8s; forward and backwards.
* Recite the x8 table up to x12, without error.
* Answer any calculation involving x8, out of order.
* Know that 4x8 is the same as 8x4 etc..
* Answer any calculation involving ÷8, out of order.
 | * Multiply a multiple of ten by a single digit mentally, using 2, 3, 4, 5, 8 and 10x.
* Multiply a 2-digit number by a single digit using 2, 3, 4, 5, 8 and 10x. Divide 2, 3, 4, 5, 8 into any multiple of ten with no remainder.
 | * Divide 2, 3, 4, 5, 8 into any 2-digit number with no remainder. Read the time to one minute intervals.
* Estimate the time to the nearest five minute interval, e.g. it is nearly ten past four.
* Recognise the Roman numerals from I to XII.
* Place I – XII on a clock face in correct place
 | * Read the time to one minute intervals.
* Estimate the time to the nearest five minute interval, e.g. it is nearly ten past four.
* Recognise the Roman numerals from I to XII.
* Place I – XII on a clock face in correct place
* Read time on clock with Roman numerals
* Show equivalent time from Roman numeral clock face on regular analogue face and vice versa
 | * Make 3D shapes from a range of materials (including modelling materials and construction)
* Accurately describe the properties of 3D shapes
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| Year 3: Spring 1 |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| 3 Place Value | 1 Fractions | 2 Fractions | 5 MeasuresLength/ Mass/ Volume | 4 Multiplication & Division | 5 Multiplication & Division |
| Compare and order numbers up to 1000Recognise the place value of each digit in a 3 digit numberIdentifies, represents and estimates numbers using different representations | Recognise and show, using diagrams, equivalent fractions with small denominators. Recognise, find and write fractions of a discrete set of objects: unit fractions & non-unit fractions with small denominators.  | Compare and order unit fractions, and fractions with the same denominators.Recognises and uses fractions as numbers: unit fractions and non-unit fractions with small denominators  | Measure, compare, add & subtract:* lengths (m/cm/mm)
* mass (kg/g)
* volume/ capacity (l/ml).
 | Consolidate:Write and calculate mathematical statements for multiplication and division using known multiplication tables, including 2-digit x 1-digit, using mental and progressing to formal written methods. | Write and calculate mathematical statements for multiplication and division using known multiplication tables, including use of money and length |
| * Know which number in a set of 3 digit numbers is the greatest
* Know which number in a set of 3 digit numbers is the smallest
* Order a set of 3 digit numbers from smallest to largest
* Order a set of 3 digit numbers from largest to smallest
* Identify the hundreds, tens and ones in any 3 digit number
* Partition a 3 digit number identifying the value of each digit
 | * Know that 1/2 is the same as 2/4
* Be able to show 1/3 and 2/6 of a square
* Know what fractional values are, e.g. ¼ is one part of four, etc.
* Know what a unit fraction is
* Know what a non-unit fraction is
* Use fractions to solve problems
* Use a fraction wall diagram to solve problems
 | * Order fractions with the same denominator.
* Order any unit fractions
 | * Use measuring apparatus to measure length, mass and volume
* Measure accurately to nearest mm, cm, m
* Measure accurately to nearest g, kg
* Measure accurately to nearest ml, l
* Know and use equivalence, e.g. 10mm = 1cm; 50cm = ½m; 100cm = 1m
* Know and use equivalence, e.g. 1000g = 1kg; 500g = ½kg
* Know and use equivalence, e.g. 1000ml = 1l; 500ml = ½l
 | * Multiply a multiple of ten by a single digit mentally, using 2, 3, 4, 5, 8 and 10x.
* Multiply a 2-digit number by a single digit using 2, 3, 4, 5, 8 and 10x.
* Divide 2, 3, 4, 5, 8 into any multiple of ten with no remainder.
* Divide 2, 3, 4, 5, 8 into any 2-digit number with no remainder.
 | * Multiply monetary values (£ only) by a single digit mentally, using 2, 3, 4, 5, 8 and 10x.
* Multiply monetary values (£ and p only) by a single digit mentally, using 2, 3, 4, 5, 8 and 10x.
* Divide 2, 3, 4, 5, 8 into any monetary value (£ only) with no remainder.
* Divide 2, 3, 4, 5, 8 into any monetary value (£ and p only) with no remainder.
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| Year 3: Spring 2 |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| 2 Geometry2D/3D Shape | 3 Addition & Subtraction | 3 Fractions | 3 GeometryAngles | 4 MeasuresTime | Consolidate and Assess |
| Draw 2D shapes | Estimate the answer to a calculation and use the inverse operations to check answers. | Add and subtract fractions with the same denominator within one whole. | Recognise angles are a property of shape or a description of a turn.Identify right angles; recognise that two right angles make a half-turn, three make three quarters & four a complete turnIdentify whether angles are greater than or less than a right angle | 12-hour & 24-hour clocks Record and compare time in terms of seconds, minutes, hours.Use vocabulary such as o’clock, am/pm, morning, afternoon, noon and midnight.  | Start this week by revising the learning covered in the Autumn and Spring terms so as to ensure pupils are fluent and secure with their basic skills. Use a simple assessment process to check on pupils’ confidence and consistency in using the learning outlined in the Autumn and Spring terms. Analyse the results and use information to help focus the intervention sessions, as needed, for the following term. |
| * Accurately draw 2D shapes and name them, e.g. squares, rectangles and triangles.
 | * Use estimation to check the reasonableness of an answer, e.g. Why can’t 65+32 = 89?
* Use inverse operations involving + and – to check answers.
 | * Add two fractions with the same denominator that add up to no more than one whole.
* Subtract one fraction from another with the same denominator (below one whole).
 | * Know that the space between two lines joined at a point is known as an angle and can be measured in degree
* Know that the measurement in degrees is greater when the space is wider
* Understand that angle can be used to describe a turn
* Be able to identify right angles in the environment
* Know a right angle as having 90º and use the degrees symbol
* Know that two right angles effectively make a straight line and is equivalent to 180º
* Know that two right angles make a half turn
* Know that three right angles make a three-quarter turn
* Know that four right angles make a complete turn
* Identify angles smaller than a right angle
* Identify angles larger than a right angle
 | * Read 24 hour clock and show time on analogue clock face, e.g. 18:30 is half past 6 in the evening.
* Be able to tell whether a time is am or pm on a 24 hour clock
* Know that 60 seconds is one minute.
* Know that 60 minutes is one hour.
* Show understanding of equivalence, e.g. 90 secs = 1 minute and a half; 75 minutes = 1 hour and a quarter.
* Order amounts of time using different units of measurement, e.g. 90 secs; 2 minutes; 120 minutes; 1.5 hours etc.
* Know that am represents time from midnight to noon.
* Know that pm represents time from noon to midnight.
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| Year 3: Summer 1 |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| 6 Multiplication & Division | 4 Addition & SubtractionDecimals | 5 Addition & Subtraction (using measures) | 7 Multiplication & Division(using measures) | 5 Measures Time  | 5 GeometryProperties |
| Additional practise for formal methods of multiplication and division, including a high focus on reasoning Solves problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects | Count up and down in tenths; recognise that tenths arise from dividing an object into ten equal parts and in dividing numbers or quantities by 10. | Add and subtract measures (length, weight and volume) with up to 3 digits, using formal written methods of columnar addition and subtraction. | Write and calculate measures for multiplication and division using known multiplication tables, including 2-digit x 1-digit, using mental and progressing to formal written methods. | Know the numbers of seconds in a minute and the number of days in each month, year and leap year.Compare durations of events, for example to calculate time taken by particular events or tasks. | Identify horizontal and vertical lines and pairs of perpendicular & parallel lines. |
| * Multiply a multiple of ten by a single digit mentally, using 2, 3, 4, 5, 8 and 10x; Setting everything out in formal method
* Multiply a 2-digit number by a single digit using 2, 3, 4, 5, 8 and 10x, setting everything out using a formal method
* Divide 2, 3, 4, 5, 8 into any multiple of ten with no remainder, setting everything out using a formal method
* Divide 2, 3, 4, 5, 8 into any 2-digit number with no remainder, setting everything out using a formal method
* Solves problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects
 | * Count up in tenths starting at zero
* Count back in tenths to zero
* Count up in tenths starting at any ‘tenth number’
* Count back in tenths starting at any ‘tenth number’
* Know that tenths arise from dividing an object, quantity or number into 10 equal parts
* Place factions (tenths) in order – ascending and descending.
 | * Add two 2-digit numbers using columnar addition without exchanging.
* Subtract a 2-digit number from a 2-digit number without exchanging.
* Add two 3-digit numbers using columnar addition without exchanging.
* Subtract a 2 or 3-digit number from a 3-digit number without exchanging.
* Add two 2-digit numbers where the units make more than 10
* Add two 3-digit numbers where the units and/or tens make more than 10
* Subtract a 2-digit number from a 2-digit number where exchanging is required
* Subtract a 2-digit number from a 3-digit number where exchanging is required
 | * Add two 2-digit numbers using columnar addition without exchanging.
* Subtract a 2-digit number from a 2-digit number without exchanging.
* Add two 3-digit numbers using columnar addition without exchanging.
* Subtract a 2 or 3-digit number from a 3-digit number without exchanging.
* Add two 2-digit numbers where the units make more than 10
* Add two 3-digit numbers where the units and/or tens make more than 10
* Subtract a 2-digit number from a 2-digit number where exchanging is required
* Subtract a 2-digit number from a 3-digit number where exchanging is required
 | * Add two 2-digit numbers using columnar addition without exchanging.
* Subtract a 2-digit number from a 2-digit number without exchanging.
* Add two 3-digit numbers using columnar addition without exchanging.
* Subtract a 2 or 3-digit number from a 3-digit number without exchanging.
* Add two 2-digit numbers where the units make more than 10
* Add two 3-digit numbers where the units and/or tens make more than 10
* Subtract a 2-digit number from a 2-digit number where exchanging is required
* Subtract a 2-digit number from a 3-digit number where exchanging is required
 | * Add two 2-digit numbers using columnar addition without exchanging.
* Subtract a 2-digit number from a 2-digit number without exchanging.
* Add two 3-digit numbers using columnar addition without exchanging.
* Subtract a 2 or 3-digit number from a 3-digit number without exchanging.
* Add two 2-digit numbers where the units make more than 10
* Add two 3-digit numbers where the units and/or tens make more than 10
* Subtract a 2-digit number from a 2-digit number where exchanging is required
* Subtract a 2-digit number from a 3-digit number where exchanging is required
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| Year 3: Summer 2 |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| 4 Place Value | 6 Addition and SubtractionProblems | 4 Fractions | 6 MeasuresMoney | 2 Statistics | Consolidate and Assess |
| Revise all Year 3 activities associated with place value, including additional reasoning activities. | Solve word problems including missing number problems, number facts, place value and more complex addition and subtraction. | Revise all Year 3 activities associated with fractions and decimals. | Consolidate:Adding and subtracting amounts of money to give change, using both £ and p in practical contexts.  | Solve 1-step and 2-step questions such as ‘How many more?’ and ‘How many fewer?’ using information presented in scaled bar charts pictograms and other graphs  | Start this week by revising the learning covered in Year 3 so as to ensure pupils are fluent and secure with their basic skills. Use a simple assessment process to check on pupils’ confidence and consistency in using the learning outlined in Year 3. Analyse the results and use information to help focus the intervention sessions, as needed, for the following term.  |
| * **Focus specifically on:**
* Knowing which number in a set of 3 digit numbers is the greatest
* Knowing which number in a set of 3 digit numbers is the smallest
* Ordering a set of 3 digit numbers from smallest to largest
* Ordering a set of 3 digit numbers from largest to smallest
* Identifying the hundreds, tens and ones in any 3 digit number
* Partitioning a 3 digit number identifying the value of each digit
* Solves number problems and practical problems involving place value.
 | * Solve missing number problems
* Solve word problems involving place value
* Solve problems with addition to 1000
* Solve problems with subtraction to 1000
 | * **Focus specifically on:**
* Adding two fractions with the same denominator that add up to no more than one whole.
* Subtracting one fraction from another with the same denominator (below one whole).
* Counting up in tenths starting at zero
* Counting back in tenths to zero
* Counting up in tenths starting at any ‘tenth number’
* Counting back in tenths starting at any ‘tenth number’
* Knowing that tenths arise from dividing an object, quantity or number into 10 equal parts
* Placing fractions (tenths) in order – ascending and descending
 | * Add any two amounts of money using notes and coins
* Sort out an amount of money by organising it into sets of the same coins and then making up sets of pounds
* Give change from £5
* Give change from £10
 | * Solve problems using pictograms
* Solve problems using bar charts
* Solve problems using graphs
* Solve 1-step problems using pictograms, scaled bar charts and other graphs
* Solve 2-step problems using pictograms, scaled bar charts and other graphs
* Solve problems which ask, ‘How many more…?’
* Solve problems which ask, ‘How many fewer…?’
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| Year 4 |

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| **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| 1 Place value, including negative numbers | 1 Multiplication & Division - Mental multiplication & division | 3 Place value.including Roman numerals  | 5Multiplication & Division - Mental multiplication & written division | 5 Place ValueCounting and sequences | 6 Place value  |
| 2 Place value  | 2 Multiplication and Division | 1 Fractions and decimals.  | 4 Place value | 3 Fractions and decimals (using measures) | 2 Statistics |
| 1 Addition and subtraction | 3 Multiplication and Division Written multiplication | 2 Fractions, decimals and division | 3 Addition and subtraction | 4 Fractions and written division | 4 Addition and subtraction (using statistics) |
| 2 Addition and subtraction (problems and inverse) | 2 MeasuresLength, including perimeter | 2 GeometryPosition and direction | 3 Geometry2D shape and position | 4 MeasuresVolume, capacity and mass | 6 Fractions - Decimals  |
| 1 Geometry2D shape | 1 Statistics | 3 MeasuresArea | 6 Multiplication & Division | 4 GeometryPosition and area  | 5 GeometryShape |
| 1 MeasuresTime | Consolidate and Assess | 4 Multiplication and Division (using measures and money) | Consolidate and Assess | 5 Fractions | Consolidate and Assess |

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| Year 4: Autumn 1 |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| 1 Place ValueNegative Numbers | 2 Place Value  | 1 Addition & Subtraction | 2 Addition & Subtraction | 1 GeometryShape | 1 MeasuresTime |
| Count backwards through zero to include negative numbers | Count in multiples of 6, 7, 9, 25 and 1000.Identifies, represents and estimates numbers using different representations | Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction, where appropriate. | Estimate and use inverse operations to check answers to a calculation. | Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.  | Read, write & convert time between analogue and digital 12- and 24-hour clocks.  |
| * Know that the value of any negative number is less than 0
* Know which of two negative numbers is greater
* Know which of two negative numbers is smaller
* Count accurately forwards from any negative number to any positive number, moving across 0
* Count accurately backwards from any positive number to any negative number, moving across 0
* Order a set of negative and positive numbers showing smallest to largest
* Order a set of negative and positive numbers showing largest to smallest
 | * Count on and back in 1000s from 0 to 10,000
* Count on and back in 10s from any given multiple between 0 and 10,000
* Count on and back in 100s from 0 to 10,000
* Count on and back in 50s from 0 to 1000 starting at any given multiple
* Count on and back in 25s from 0 to 1000 starting at any given multiple
* Count on and back in 9s from 0 to 1000 starting at any given multiple
* Count on in 8s from 0 to 1000 starting at any given multiple
* Count on in 7s from 0 to 1000 starting at any given multiple
* Count on in 6s from 0 to 1000 starting at any given multiple.

Identify, represents and estimates numbers using different representations | * Add numbers with 4-digits without exchanging
* Add numbers with 4-digits where the total of hundreds, tens or ones exceed 10
* Subtract a number from a 4-digit number which requires no exchanging
* Subtract a number from a 4-digit number where exchanging is required
 | * Estimate the answer to any given addition involving two 2-digit numbers to the nearest 10.
* Estimate the answer to any given addition involving two 3-digit numbers to the nearest 100.
* Estimate the answer to any given addition involving two 3-digit numbers to the nearest 10.
* Estimate the answer to any given subtraction involving two 2-digit numbers to the nearest 10.
* Estimate the answer to any given subtraction involving two 3-digit numbers to the nearest 100.
* Estimate the answer to any given subtraction involving two 3-digit numbers to the nearest 10.
* Explain the term ‘inverse’ and exemplify with an example.
* Check the answer to any calculation with 2 and 3 digit numbers using the inverse.
 | * Sort shapes according to their properties using correct vocabulary
* Draw and classify shapes based on given criteria, then sort
 | * Know how to set out each analogue time in digital format
* Know how to set out each digital time in analogue format.
* Convert between analogue and digital and vice versa
* Explain how the digital clock system works, e.g. 10 past 2 in the afternoon = 2:10pm = 14:10.
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| Year 4: Autumn 2 |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| 1 Multiplication & Division - Mental | 2 Multiplication & Division | 3 Multiplication & Division | 2 MeasuresPerimeter | 1 Statistics | Consolidate and Assess |
| Recall multiplication and division facts for tables up to 12x12. | Recognise and use factor pairs and commutativity in mental calculations. | Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout. | Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m.**Estimates, compares and calculates different measures, including money in pounds and pence**  | Interpret and present discrete and continuous data using appropriate graphical methods, including:bar chartstime graphs | * Start this week by revising the learning covered in the Autumn term so as to ensure pupils are fluent and secure with their basic skills.
* Use a simple assessment process to check on pupils’ confidence and consistency in using the learning outlined in the Autumn term.

 * Analyse the results and use information to help focus the intervention and pre-teaching sessions, as needed, for the following term.
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| * Count in 6s; forward and backwards.
* Recite the x6 tables up to x12, without error.
* Answer any calculation involving x6, out of order.
* Know that 2x6 is the same as 6x2 etc.
* Answer any calculation involving ÷6, out of order.
* Count in 7s; forward and backwards.
* Recite the x7 table up to x12, without error.
* Answer any calculation involving x7, out of order.
* Know that 3x7 is the same as 7x3 etc.
* Answer any calculation involving ÷7, out of order.
* Count in 9s; forward and backwards.
* Recite the x9 table up to x12, without error.
* Answer any calculation involving x9, out of order.
* Know that 4x9 is the same as 9x4 etc.
* Answer any calculation involving ÷9, out of order.
* Recall multiplication facts for all tables up to 12x12 out of order
* Recall division facts for all tables up to 12x12 out of order
 | * Explain the term ‘factor pair’.
* Know all the factors within all numbers to 10.
* Work out all the factors of any number to 144.
* Know the term ‘square number’ and recall all square numbers associated with numbers 1 – 144.
 | * Multiply a multiple of 100 by a single-digit number mentally, using 2, 3, 4, 5, 6, 7, 8 and 9x.
* Multiply a 2-digit number by a single digit number using 2, 3, 4, 5, 6, 7, 8, 9x.
* Multiply a 3-digit number by a single digit number using 2, 3, 4, 5, 6, 7, 8, 9x.
 | * Know the formula for calculating the perimeter of a rectangle (2 x length plus 2 x breadth)
* Know that the perimeter of an irregular shape can be calculated by adding the length of each individual side together

**Estimates, compares and calculates different measures, including money in pounds and pence**  | * ‘Tell the story’ of a bar chart with no scales on the axes
* ‘Tell the story’ of a bar chart with scales on the axes
* ‘Tell the story’ of a time graph with no scales on the axes
* ‘Tell the story’ of a time graph with scales on the axes
* Construct a bar chart with correct labelling of both axes
* Plot information on a time graph
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| Year 4: Spring 1 |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| 3 Place ValueRoman Numerals | 1 Fractions  | 2 Fractions | 2 GeometryPosition and Direction | 3 Measures Area | 4 Multiplication & Division |
| Read Roman numerals to 100 and understand that over time, the numeral system changes to include the concept of zero and place value. | Recognise and show, using diagrams, families of common equivalent fractions.Solves problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number  | Add and subtract fractions with the same denominator.Solves problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number  | Describe positions on a 2D grid as coordinates in the first quadrant | Find the area of rectilinear shapes by counting squares.  | Divide 2-digit and 3-digit numbers by a 1-digit number using formal written layout with no remainder. |
| * Read Roman numerals from 1 to 10
* Read Roman numerals to 50
* Read Roman numerals to 100
* Write Roman numerals from 1 to 10
* Write Roman numerals to 50
* Write Roman numerals to 100
 | * Know all equivalent fractions of 1/2 up to and including the denominator 12
* Know all equivalent fractions of 1/4 up to and including the denominator 12
* Know all equivalent fractions of ¾ up to and including the denominator 12
* Know all equivalent fractions of 1/3 up to and including the denominator 12
* Know all equivalent fractions of 2/3 up to and including the denominator 12

Solves problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number  | * Add two fractions with the same denominator that add up to more than one whole.
* Subtract one fraction from another with the same denominator crossing one whole.

Solves problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number  | * Read coordinates using both axes
* Plot points using both axes
* Answer questions involving coordinates
* Create shapes by plotting points in first quadrant
 | * Count squares to identify the area of a shape.
* Draw shapes of a given size, e.g. 20 squares.
* Introduce the term square centimetre/cm2
* Use the formula for calculating the area of a rectilinear shape (l x b)
 | * Divide a multiple of 10 by a single digit number using 2, 3, 4, 5, 6, 7, 8, 9x with no remainder.
* Divide a 2-digit number by a single digit number using 2, 3, 4, 5, 6, 7, 8, 9x with no remainder.
* Divide a 3-digit number by a single digit number using 2, 3, 4, 5, 6, 7, 8, 9x with no remainder.
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| Year 4: Spring 2 |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| 5 Multiplication & Division | 4 Place Value | 3 Addition & Subtraction | 3 Geometry2D Shape | 6 Multiplication & Division - Decimals | Consolidate and Assess |
| Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; multiplying three numbers together.Solves problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects | Find 1000 more or less than a given number.Solves number and practical problems that involve all of the above and with increasingly large positive numbers | ConsolidateAdd and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. | -Identify lines of symmetry in 2D shapes presented in different orientations.- Complete a simple symmetric figure with respect to a specific line of symmetry | Find the effect of multiplying a number with up to 2 decimal places by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths. | Start this week by revising the learning covered in the Autumn and Spring terms so as to ensure pupils are fluent and secure with their basic skills. Use a simple assessment process to check on pupils’ confidence and consistency in using the learning outlined in the Autumn and Spring terms. Analyse the results and use information to help focus the intervention or pre-teaching sessions, as needed, for the following term.   |
| * Use all table facts up to 12x12 in calculations involving multiplication and division.
* Know what happens when multiplying by 0 or 1.
* Know what happens when dividing by 1.
* Know what happens when three numbers are multiplied together.

Solves problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects | * Find 100 more than any 3 digit number
* Find 100 less than any 3 digit number
* Find 100 more than any 4 digit number
* Find 100 less than any 4 digit number
* Find 1000 more than any 4 digit number
* Find 1000 less than any 4 digit number
* Find 1000 more than any 2 digit number
* Find 1000 more than any 3 digit number

Solves number and practical problems that involve all of the above and with increasingly large positive numbers | * Add numbers with 4-digits without exchanging
* Add numbers with 4-digits where the total of hundreds, tens or ones exceed 10
* Subtract a number from a 4-digit number which requires no exchanging
* Subtract a number from a 4-digit number where exchanging is required
 | * Define and show understanding of symmetry
* Show lines of symmetry in an equilateral or isosceles triangle (in different orientations)
* Show lines of symmetry in a quadrilateral (in different orientations)
* Show lines of symmetry in circle
* Create simple symmetrical figures and show lines of symmetry
* Recognise lines of symmetry in given shapes
 | * Multiply any number with up to 2 decimal places by 10 and express the answer using tenths.
* Multiply any number with up to 2 decimal places by 100 and express the answer using tenths and hundredths.
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| Year 4: Summer 1 |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| 5 Place Value | 3 Fractions | 4 Fractions | 4 MeasuresLength/ Mass/ Capacity/Time | 4 GeometryPosition & Direction | 5 Fractions |
| **Recognises the place value of each digit in a four-digit number** Compare and order numbers beyond 1000Solves number and practical problems that involve all of the above and with increasingly large positive numbers | Find the effect of dividing a 1-digit or 2-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; recognise that hundredths arise from dividing an object into 100 equal parts and in dividing numbers or quantities by 100. | Convert between different units of measure (e.g. km to m; hr to min)Solves problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days | -Describe positions on a 2D grid as coordinates in the first quadrant- Describe movements between positions as translations of a given unit to the left/right and up/down- Plot specified points and draw sides to complete given polygon | -Recognise and write decimals equivalents of any number of tenths or hundredths- Recognise and write decimal equivalents to ¼, ½ and ¾. |
| **Recognises the place value of each digit in a four-digit number** * Know which number in a set of 4 digit numbers is the greatest
* Know which number in a set of 4 digit numbers is the smallest
* Order a set of 4 digit numbers from smallest to largest
* Order a set of 4 digit numbers from largest to smallest

Solves number and practical problems that involve all of the above and with increasingly large positive numbers | * Divide any 2 digit number by 10 and express the answer using tenths.
* Divide any 2 digit number by 100 and express the answer using tenths and hundredths.
 | * Count up in hundredths starting at zero
* Count back in hundredths to zero
* Count up in hundredths starting at any ‘hundredth number’
* Count back in hundredths starting at any ‘hundredth number’
* Know that hundredths arise from dividing an object, quantity or number into 100 equal parts
* Place factions (hundredths) in order – ascending and descending.
 | * Revise relationships between measures: 1000m = 1km; 100cm = 1m; 10mm = 1cm
* Revise relationships between measures: 1000g = 1kg
* Revise relationships between measures: 60 min = 1 hour; 60 secs = 1 min; 12 months = 1 year
* Solve problems involving conversion between units of measure
* Express a distance of more than 1km in m
* Express a distance of more than 1cm in mm
* Express a mass of more than 1kg in g
* Express a volume of more than 1l in ml
* Express the passing of time of more than 1 hour in minutes
* Express the passing of time of more than 1 minute in seconds.

Solves problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days | * Read coordinates using both axes
* Plot points using both axes
* Answer questions involving coordinates
* Create shapes by plotting points in first quadrant
* Explain a change in a given position by the movement made along the axes of the quadrant
* Use numbered axes to plot points to form a polygon
* Describe the properties of the polygon
 | * Know that 1/10 = 0.1 [for each tenth value]
* Know that 1/100 = 0.01 [for each hundredth value]
* Know that 0.25 = ¼
* Know that 0.5 = ½
* Know that 0.75 = ¾
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| Year 4: Summer 2 |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| 6 Place Value | 2 Statistics | 4 Addition & Subtraction | 6 Fractions Decimals | 5 Geometry | Consolidate and Assess |
| Round any number to the nearest 10, 100 or 1000Solves number and practical problems that involve all of the above and with increasingly large positive numbers | Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs | Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. | Round decimals with one decimal place to the nearest whole number.Compare numbers with the same number of decimal places up to two decimal places.Solves simple measure and money problems involving fractions and decimals to two decimal places | Identify acute and obtuse angles and compare and order angles up to two right angles by size. | Start this week by revising the learning covered in Year 4 so as to ensure pupils are fluent and secure with their basic skills. Use a simple assessment process to check on pupils’ confidence and consistency in using the learning outlined in Year 4. Analyse the results and use information to help focus the pre-teaching sessions, as needed, for the following term.  |
| * Round any number up to 100 to the nearest 10
* Round any number up to 1000 to the nearest 10
* Round any number up to 1000 to the nearest 100
* Round any number up to 10,000 to the nearest 1000

Solves number and practical problems that involve all of the above and with increasingly large positive numbers | * Compare information in bar charts to answer questions
* Solve addition problems using information in bar charts to answer questions
* Solve difference problems using information in bar charts to answer questions
* Compare information in pictograms to answer questions
* Solve addition problems using information in pictograms to answer questions
* Solve difference problems using information in pictograms to answer questions
* Compare information in tables to answer questions
* Solve addition problems using information in tables to answer questions
* Solve difference problems using information in tables to answer questions
 | * Solve two-step problems using addition to 1000.
* Solve two-step problems with subtraction to 1000.
* Solve two-step problems using addition and subtraction to 1000.
 | * Round a number with one decimal place to nearest whole number.
* Given 3 numbers with one decimal place, place in order (smallest to largest and vice versa).
* Given 5 numbers with one decimal place, place in order (smallest to largest and vice versa).
* Given 3 numbers with two decimal places, place in order (smallest to largest and vice versa).
* Given 5 numbers with two decimal places, place in order (smallest to largest and vice versa).

Solves simple measure and money problems involving fractions and decimals to two decimal places | * Know that an angle smaller than a right angle is known as an acute angle
* Know that an angle larger than a right angle is known as an obtuse angle
* Identify and describe an acute angle
* Identify and describe an obtuse angle
* Compare and order angles by size
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