# Year 6, Autumn Term 1

| Wk | Strands | Progression Focus | Weekly Summary |
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| 1 | **NPV** Number and place value; **MMD** Mental multiplication and division; **DPE** Decimals, percentages and their equivalence to fractions; **FRP** Fractions, ratio and proportion | **Place value; addition**<br>Weeks 1 and 2 focus on establishing a robust understanding of place value in relation to whole numbers and decimals, which is then used in written methods and mental strategies in addition. | Read, write and compare 6-digit numbers and know what each digit represents; read, write and compare 1-, 2- and 3-place decimal numbers; multiply and divide by 10, 100 and 1000; round decimals to nearest tenth and whole number and place on a number line; convert decimals (up to 3 places) to fractions and vice-versa.<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:<br>• Read, write, order and compare numbers up to 1 000 000 and determine the value of each digit<br>Please see Mastery Checkpoint 6.1.1 (Teacher Guide 6.1.1)<br>• Identify the value of each digit in numbers with up to 3 decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places; use this knowledge to compare and order numbers, and round numbers, with up to 3 decimal places<br>• Convert decimals (up to 3 places) to fractions and vice versa using thousandths, hundreths and tenths<br>Please see Mastery Checkpoint 6.1.2 (Teacher Guide 6.1.2) |
| 2 | **MAS** Mental addition and subtraction; **NPV** Number and place value; **WAS** Written addition and subtraction; **DPE** Decimals, percentages and their equivalence to fractions; **PRA** Problem solving, reasoning and algebra | **Place value; addition**<br>Weeks 1 and 2 focus on establishing a robust understanding of place value in relation to whole numbers and decimals, which is then used in written methods and mental strategies in addition. | Use mental addition strategies to solve additions including decimal numbers; use column addition to add 5-digit numbers, decimal numbers and amounts of money; solve problems involving number up to 3 decimal places, choose an appropriate method to solve decimal addition.<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoint in this week. They test the following outcomes from the Progression Map:<br>• Choose and use an appropriate method to add whole numbers with up to 5 digits<br>Please see Mastery Checkpoint 6.2.3 (Teacher Guide 6.2.3)<br>• Choose and use an appropriate mental or written method, including column addition and subtraction, to add and subtract decimal numbers with 1, 2 or 3 decimal places, including in the context of measures and money<br>Please see Mastery Checkpoint 6.2.4 (Teacher Guide 6.2.4) |
| 3 | **PRA** Problem solving, reasoning and algebra; **MAS** Mental addition and subtraction | **Algebra**<br>Week 3 focuses on algebra – developing the | Express missing number problems algebraically and find pairs of numbers that satisfy equations involving two unknowns; find missing lengths and |

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| | | use of trial and improvement methods, knowledge of the order of operations including brackets, and the manipulation of sentences containing unknowns. | angles; understand how brackets can be used in calculation problems; use knowledge of the order of operations to carry out calculations involving the four operations, solve addition and subtraction multi-step problems using knowledge of the order of operations.<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoint in this week. They test the following outcomes from the Progression Map:<br>• Use letters to represent missing numbers in number sentences<br>• Find pairs of numbers that satisfy an equation with two unknowns<br>• Enumerate possibilities of combinations of two variables<br>Please see Mastery Checkpoint 6.3.5 (Teacher Guide 6.3.5)<br>• Use knowledge of the order of operations and brackets to carry out multi-step calculations involving addition, subtraction, multiplication and division<br>Please see Mastery Checkpoint 6.3.6 (Teacher Guide 6.3.6) |
| 4 | **MEA** Measurement; **PRA** Problem solving, reasoning and algebra; **NPV** Number and place value | **Measures**<br>Week 4 focuses on measurement in and conversion of SI and imperial units; it also covers the use of 24-hour clock and calculation of time intervals. | Convert between grams and kilograms, millilitres and litres, millimetres and centimetres, centimetres and metres, metres and kilometres, and miles and kilometres; revise reading the 24-hour clock and convert 12-hour times to 24-hour; read and write Roman numerals; find time intervals using the 24-hour clock.<br>**Mastery Checkpoint**<br>There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:<br>• Solve problems involving the calculation and conversion of units of measure, using decimal notation, up to 3 decimal places where appropriate<br>• Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to 3 decimal places<br>Please see Mastery Checkpoint 6.4.7 (Teacher Guide 6.4.7) |
| 5 | **MAS** Mental addition and subtraction; **WAS** Written addition and subtraction; **NPV** Number and place value; **PRA** Problem solving, reasoning and algebra | **Subtraction**<br>Week 5 focuses on mental strategies and written methods in subtracting and the appropriate use of both with whole and decimal numbers, including money. | Use mental addition, column subtraction and Counting up to solve subtractions of amounts of money and word problems; use mathematical reasoning to investigate.<br>**Mastery Checkpoint**<br>There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:<br>• Choose and use an appropriate method to subtract whole numbers with up to 5 digits |

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| | | | Please see Mastery Checkpoint 6.5.8 (Teacher Guide 6.5.8) |
| 6 | **MMD** Mental multiplication and division; **WMD** Written multiplication and division; **MAS** Mental addition and subtraction; **PRA** Problem solving, reasoning and algebra; **NPV** Number and place value | **Multiplication**<br>Week 6 focuses on mental strategies and written methods in multiplying; both long and short multiplication are rehearsed, alongside a range of mental tactics. | Use mental multiplication strategies to multiply by numbers such as 4, 8, 5, 25, 19, 29 and 99; revise using short multiplication to multiply 4-digit numbers by 1-digit numbers and use this to multiply amounts of money; solve word problems involving multiplication including two-step problems and finding change; use long multiplication to multiply 3-digit and 4-digit numbers by teens numbers.<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:<br>• Use short multiplication to multiply numbers with up to 4 digits, including amounts of money, by 1-digit numbers and solve word problems involving multiplication including two-step problems and finding change<br>Please see Mastery Checkpoint 6.6.9 (Teacher Guide 6.6.9)<br>• Multiply multi-digit numbers up to 4 digits by numbers between 10 and 40 using the formal written method of multiplication<br>Please see Mastery Checkpoint 6.6.10 (Teacher Guide 6.6.10) |

# Year 6, Autumn Term 2

| Wk | Strands | Progression Focus | Weekly Summary |
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| 7 | **NPV** Number and place value; **PRA** Problem solving, reasoning and algebra; **FRP** Fractions, ratio and proportion | **Negative numbers; fractions**<br>Week 7 focuses on positive and negative whole numbers, and then comparing, ordering, adding and subtracting fractions, including mixed numbers. | Understand negative numbers; calculate small differences between negative numbers and negative and positive numbers; add and subtract negative numbers; compare fractions with unlike, but related, denominators; correctly use the terms fraction, denominator and numerator; understand what improper fractions and mixed numbers are and add fractions with the same denominator, writing the answer as a mixed number<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:<br>• Use negative numbers in context, and calculate intervals across zero<br>Please see Mastery Checkpoint 6.7.11 (Teacher Guide 6.7.11)<br>• Compare and order fractions, including fractions > 1<br>• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination<br>• Convert improper fractions to mixed numbers; convert mixed numbers to improper fractions<br>Please see Mastery Checkpoint 6.7.12 (Teacher Guide 6.7.12) |

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| 8 | **MEA** Measurement; **GPS** Geometry: properties of shapes | **Shape, and measurement in relation to shape**<br>Week 8 focuses on 2D shapes, their properties, areas, and perimeters, and 3D shapes, their nets, volumes and properties. | Calculate the perimeter, area and volume of shapes, and know their units of measurement; understand that shapes can have the same perimeters but different areas and vice versa; calculate the area of a triangle using the formula A = 1/2 b × h; find the area of parallelograms using the formula A = b × h ; name and describe properties of 3D shapes; systematically find and compare nets for different 3D shapes.<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:<br>• Recognise, describe and build simple 3D shapes, including making nets<br>• Recognise when it is possible to use formulae for area and volume shapes<br>• Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and cubic metres, and extending to other units (for e.g. cubic millimetres and kilometres)<br>Please see Mastery Checkpoint 6.8.13 (Teacher Guide 6.8.13)<br>• Recognise that shapes with the same areas can have different perimeters and vice versa; begin to measure area and perimeter<br>• Recognise when it is possible to use formulae for area and volume and shapes<br>• Calculate the area of parallelograms and triangles<br>Please see Mastery Checkpoint 6.8.14 (Teacher Guide 6.8.14) |
| 9 | **MMD** Mental multiplication and division; **FRP** Fractions, ratio and proportion; **WMD** Written multiplication and division; **PRA** Problem solving, reasoning and algebra | **Division; fractions and percentages**<br>Weeks 9, 10 and 11 focus on division and fractions; children rehearse mental strategies and short division, giving remainders as fractions; fractions are added, subtracted, multiplied and divided; finding percentages is also covered. | Use mental strategies to divide by 2, 4, 8, 5, 20 and 25; find non-unit fractions of amounts; use short division to divide 3- and 4-digit numbers by 1-digit numbers, including those which leave a remainder; express a remainder as a fraction, simplifying where possible.<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:<br>• Find non-unit fractions of amounts<br>Please see Mastery Checkpoint 6.9.15 (Teacher Guide 6.9.15)<br>• Divide numbers up to 4 digits by numbers up to 12 using the formal written method of short division, where appropriate interpret remainders according to the context and use reasoning to find a solution<br>• Express a remainder after division as a fraction, simplifying where possible<br>Please see Mastery Checkpoint 6.9.16 (Teacher Guide 6.9.16) |
| 10 | **FRP** Fractions, ratio and proportion; **PRA** Problem solving, reasoning and | **Division; fractions and percentages**<br>Weeks 9, 10 and 11 focus on division and fractions; | Add and subtract unit fractions with different denominators including mixed numbers; use mental strategies to find simple percentages of amounts, |

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| | algebra; **DPE** Decimals, percentages and their equivalence to fractions | children rehearse mental strategies and short division, giving remainders as fractions; fractions are added, subtracted, multiplied and divided; finding percentages is also covered. | including money<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:<br>• Use equivalence to add and subtract proper fractions and mixed numbers with related or unrelated denominators, and spot and test a rule<br>Please see Mastery Checkpoint 6.10.17 (Teacher Guide 6.10.17)<br>• Solve problems involving the calculation of percentages and the use of percentages for comparison<br>• Use knowledge of equivalence between fractions and percentages and mental strategies to solve problems involving the calculation of percentages, including amounts of money and other measures<br>Please see Mastery Checkpoint 6.10.18 (Teacher Guide 6.10.18) |
| 11 | **FRP** Fractions, ratio and proportion | **Division; fractions and percentages**<br>Weeks 9, 10 and 11 focus on division and fractions; children rehearse mental strategies and short division, giving remainders as fractions; fractions are added, subtracted, multiplied and divided; finding percentages is also covered. | Multiply fractions less than 1 by whole numbers, converting improper fractions to whole numbers; use commutativity to efficiently multiply fractions by whole numbers; divide unit and non-unit fractions by whole numbers; solve word problems involving fractions.<br>**Mastery Checkpoint**<br>There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:<br>• Multiply fractions less than 1 by whole numbers<br>• Divide proper fractions by whole numbers<br>Please see Mastery Checkpoint 6.11.19 (Teacher Guide 6.11.19) |

## Year 6, Spring Term 1

| Wk | Strands | Progression Focus | Weekly Summary |
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| 12 | **NPV** Number and place value; **WAS** Written addition and subtraction | **Place value; subtraction**<br>Week 12 focuses on a robust understanding of place value in large numbers, which underpins the subtraction work that follows. | Read and write numbers with up to 7-digits, understanding what each digit represents; work systematically to find out how many numbers round to 5000000; solve subtraction of 5- and 6-digit numbers using written column method (decomposition).<br>**Mastery Checkpoint**<br>There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:<br>• Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit<br>• Round any whole number to a required degree of accuracy |

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| | | | • Solve number and practical problems involving place value, comparison and rounding of integers<br>Please see Mastery Checkpoint 6.12.20 (Teacher Guide 6.12.20) |
| 13 | **DPE** Decimals, percentages and their equivalence to fractions; **FRP** Fractions, ratio and proportion | **Multiplication of decimals and fractions**<br>Weeks 13 and 14 focus on understanding decimal and proper fractions and their equivalences; calculations including multiplication of these numbers are rehearsed. | Multiply and divide by 10, 100 and 1000; compare and order numbers with up to three decimal places; know common fraction / decimal equivalents; multiply pairs of unit fractions and multiply unit fractions by non-unit fractions<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:<br>• Compare and order numbers with 1, 2 or 3 decimal places<br>• Use appropriate strategies to multiply and divide mentally, including by multiples of 10, 100 and 1000<br>Please see Mastery Checkpoint 6.13.21 (Teacher Guide 6.13.21)<br>• Multiply pairs of unit fractions by reading the × sign as 'of'<br>• Multiply unit fractions by non-unit fractions, writing the answer in its simplest form<br>Please see Mastery Checkpoint 6.13.22 (Teacher Guide 6.13.22) |
| 14 | **MMD** Mental multiplication and division; **WMD** Written multiplication and division; **PRA** Problem solving, reasoning and algebra; **NPV** Number and place value | **Multiplication of decimals and fractions**<br>Weeks 13 and 14 focus on understanding decimal and proper fractions and their equivalences; calculations including multiplication of these numbers are rehearsed. | Use partitioning to mentally multiply 2-digit numbers with one decimal place by whole 1-digit numbers; multiply numbers with two decimal places; use short multiplication to multiply amounts of money; use estimation to check answers to calculations; use long multiplication to multiply 3-digit and 4-digit numbers by numbers between 10 and 30.<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:<br>• Use mental strategies to multiply 2-digit numbers with one decimal place by 1-digit whole numbers<br>• Multiply 1- and 2-digit numbers with up to 2 decimal places by whole numbers<br>Please see Mastery Checkpoint 6.14.23 (Teacher Guide 6.14.23)<br>• Use short multiplication to multiply 4-digit amounts of money by 1-digit numbers, and use estimation to check answers<br>Please see Mastery Checkpoint 6.14.24 (Teacher Guide 6.14.24) |
| 15 | **GPS** Geometry: properties of shapes; **PRA** Problem solving, reasoning and algebra | **2D shapes; angles**<br>Week 15 focuses on 2D shapes, particularly quadrilaterals, in relation to their diagonals and interior angles; circles are also taught, along with relevant terminology. | Name, classify and identify properties of quadrilaterals; explore how diagonal lines can bisect quadrilaterals; understand what an angle is and that it is measured in degrees; know what the angles of triangles, quadrilaterals, pentagons, hexagons and octagons add to and use these facts and mathematical reasoning to calculate missing angles; recognise and identify the properties of circles and name their parts; draw circles using pairs of compasses; draw polygons using a ruler and a protractor |

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| | | | **Mastery Checkpoint**<br>There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:<br>• Draw 2D shapes using given dimensions and angles<br>• Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius<br>Please see Mastery Checkpoint 6.15.25 (Teacher Guide 6.15.25) |
| 16 | **MAS** Mental addition and subtraction; **NPV** Number and place value; **WAS** Written addition and subtraction; **PRA** Problem solving, reasoning and algebra | **Addition and subtraction**<br>Week 16 focuses on mental and written addition and subtraction methods, including solving word problems. | Add and subtract numbers using mental strategies; solve addition of 4- to 7-digit numbers using written column addition; identify patterns in the number of steps required to generate palindromic numbers; solve subtraction of 5-, 6- and 7-digit numbers using written column method (decomposition); solve additions and subtractions choosing mental strategies or written procedures as appropriate; read, understand and solve word problems<br>**Mastery Checkpoint**<br>There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:<br>• Choose and use an appropriate method, including column addition, to add whole numbers with up to 7 digits, and identify patterns in the number of steps required to generate palindromic numbers.<br>• Choose and use an appropriate method to subtract whole numbers with up to 7 digits<br>• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.<br>Please see Mastery Checkpoint 6.16.26 (Teacher Guide 6.16.26) |
| 17 | **WMD** Written multiplication and division; **NPV** Number and place value; **PRA** Problem solving, reasoning and algebra | **Multiplication and division**<br>Week 17 focuses on number patterns involving factors and multiples, and on long division. | Identity common factors and common multiples; understand that a prime number has exactly two factors and find prime numbers less than 100; understand what a composite (non-prime) number is; use long division to divide 3- and 4-digit numbers by 2-digit numbers, giving remainders as a fraction, simplifying where possible<br>**Mastery Checkpoint**<br>There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:<br>• Identify common factors, common multiples and prime numbers<br>Please see Mastery Checkpoint 6.17.27 (Teacher Guide 6.17.27) |

## Year 6, Spring Term 2

| Wk | Strands | Progression Focus | Weekly Summary |
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| 18 | **MAS** Mental addition and subtraction; | **Addition and subtraction** | Solve addition and subtraction multi-step problems in shopping contexts, and add and |

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| | **WAS** Written addition and subtraction; **PRA** Problem solving, reasoning and algebra | Week 18 focuses on solving addition and subtraction problems involving money and decimals. | subtract money using column addition and counting up; add and subtract decimal numbers choosing an appropriate strategy, and add decimal numbers with different numbers of places using column addition; use mathematical reasoning to investigate and solve problems, and solve subtractions of decimal numbers with different numbers of places (2-places) using counting up |
| 19 | **STA** Statistics; **DPE** Decimals, percentages and their equivalence to fractions | **Statistics and data**<br>Week 19 focuses on data representation and manipulation, including line graphs, pie charts and the use and calculation of averages. | Calculate and understand the mean average; construct and interpret distance/time line graphs where intermediate points have meaning, including conversion line graphs; understand pie charts are a way of representing data using percentages, interpret and construct pie charts<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:<br>• Calculate and interpret the mean as an average<br>Please see Mastery Checkpoint 6.19.28 (Teacher Guide 6.19.28)<br>• Read and interpret a range of tables, graphs, pictograms and bar charts and answer questions relating to data displayed in these<br>• Interpret and construct pie charts and use these to solve problems<br>• Interpret and construct line graphs and use these to solve problems<br>• Convert between miles and kilometres<br>Please see Mastery Checkpoint 6.19.29 (Teacher Guide 6.19.29) (Additional Resource 6.19.29) |
| 20 | **GPD** Geometry: position and direction; **NPV** Number and place value; **PRA** Problem solving, reasoning and algebra; **GPS** Geometry: properties of shapes | **Coordinate geometry; angles**<br>Week 20 focuses on position on a 4-quadrant coordinate grid, with polygons being plotted, translated and reflected; the week concludes with angle theorems. | Read and plot coordinates in all four quadrants, draw and translate simple polygons using coordinates and find missing coordinates for a vertex on a polygon; draw and reflect simple polygons in both the x-axis and y-axis using coordinates; find unknown angles around a point, on a line, in a triangle or vertically opposite and in polygons where diagonals intersect<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:<br>• Describe positions on the full coordinate grid (all four quadrants)<br>• Draw and translate simple shapes on the coordinate plane, and reflect them in the axes<br>Please see Mastery Checkpoint 6.20.30 (Teacher Guide 6.20.30) (Additional Resource 6.20.30)<br>• Compare and classify geometric shapes based on their properties and sizes and use mathematical reasoning to find unknown angles in any triangles, quadrilaterals, and regular polygons<br>• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles |

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| | | | Please see Mastery Checkpoint 6.20.31 (Teacher Guide 6.20.31) |
| 21 | **WMD** Written multiplication and division; **PRA** Problem solving, reasoning and algebra | **Multiplication and division**<br>Week 21 focuses on the use of written algorithms in multiplying and dividing large numbers; both long and short versions of these methods are taught. | Multiply 4-digit numbers including those with two decimal places by 1-digit numbers; use long multiplication to multiply 4-digit numbers by numbers between 10 and 30, including those with two decimal places; revise using short division to divide 4-digit by 1-digit and 2-digit numbers including those which leave a remainder, and divide the remainder by the divisor to give a fraction, simplifying where possible, and make approximations; use long division to divide 4-digit by 2-digit numbers, and use a systematic approach to solve problems<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:<br>• Multiply multi-digit numbers up to 4 digits by a 1- or 2-digit whole number using the formal written method of long multiplication<br>• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy<br>Please see Mastery Checkpoint 6.21.32 (Teacher Guide 6.21.32)<br>• Divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division, making an estimate using multiples of 10 or 100 of the divisor, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context<br>• Solve problems which require answers to be rounded to specified degrees of accuracy<br>• Use written division methods in cases where the answer has up to 2 decimal places<br>Please see Mastery Checkpoint 6.21.33 (Teacher Guide 6.21.33) |
| 22 | **PRA** Problem solving, reasoning and algebra; **FRP** Fractions, ratio and proportion | **Algebra; ratio**<br>Week 22 focuses on the use of generalisations and simple formula, including to find the nth term in a sequence; then moves on to ratio. | Generalise a relationship between pairs of numbers, express simple formulae in words, then using letters; describe and continue sequences, generalise to predict the tenth term, begin to generalise a term in a sequence using *n* to stand for the number of the term in a sequence; describe ratio and use ratio to solve problems; find fractions and simplify ratios<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:<br>• Use simple formulae<br>• Continue, generate and describe linear number sequences<br>Please see Mastery Checkpoint 6.22.34 (Teacher Guide 6.22.34)<br>• Solve problems involving simple ratios, i.e. unequal sharing and grouping using knowledge of fractions and multiples<br>Please see Mastery Checkpoint 6.22.35 (Teacher Guide 6.22.35) |

# Year 6, Summer Term 1

| Wk | Strands | Progression Focus | Weekly Summary |
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| 23 | **NPV** Number and place value; **DPE** Decimals, percentages and their equivalence to fractions | **Revision: place value and decimals**<br>Week 23 focuses on revision of place value in large numbers and in decimal fractions. | Revise reading, writing, comparing and ordering numbers with up to seven digits and decimal numbers with up to three decimal places; revise rounding decimal numbers to the nearest tenth and whole number; revise rounding big numbers to the nearest thousand, ten thousand, hundred thousand and million; revise locating a number on a number line marking numbers it lies between; revise comparing and ordering negative numbers including calculating differences between negative numbers and positive and negative numbers |
| 24 | **NPV** Number and place value; **MAS** Mental addition and subtraction; **WAS** Written addition and subtraction; **DPE** Decimals, percentages and their equivalence to fractions; **FRP** Fractions, ratio and proportion; **PRA** Problem solving, reasoning and algebra; **GPS** Geometry: properties of shapes | **Revision**<br>Week 24 focuses on revision of: mental and written strategies in addition and subtraction; finding percentages; order of operations; and finding unknowns in equations. | Revise adding and subtracting whole numbers and decimal numbers using mental and written methods; revise finding percentages of numbers, converting fractions, decimals and percentages and making comparisons using percentages; revise how brackets can be used in calculation problems, revise the order of operations for calculations involving the four operations; revise solving missing number problems using inverse operations; revise using trial and improvement to solve equations involving one or two unknowns, and find missing lengths and angles<br>**Mastery Checkpoint**<br>There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:<br>• Solve problems involving addition, subtraction, multiplication and division<br>Please see Mastery Checkpoint 6.24.36 (Teacher Guide 6.24.36)<br>• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts, and use mental strategies to solve problems involving simple percentages of amounts<br>Please see Mastery Checkpoint 6.24.37 (Teacher Guide 6.24.37) |
| 25 | **MAS** Mental addition and subtraction; **FRP** Fractions, ratio and proportion; **WMD** Written multiplication and division; **MMD** Mental multiplication and division; **PRA** Problem solving, reasoning and algebra; **NPV** Number and place value | **Revision: multiplication and division**<br>Weeks 25 and 26 focus on revision of: written algorithms for multiplication and division and mental strategies including the use of factors; finding fractions of amounts; and calculating mean average. | Revise scaling, using mental strategies for multiplying and dividing; revise solving problems involving rate; revise multiplying pairs of 2-digit numbers and finding factors of 2-digit numbers; multiply 3-digit and 4-digit numbers including decimals by whole 1-digit numbers and solve word problems involving multiplication of money and measures; use a systematic approach to solve problems involving multiplication and division, including long multiplication of 3-digit and 4-digit numbers and decimals |
| 26 | **WMD** Written multiplication and division; **PRA** Problem solving, reasoning and algebra; **NPV** | **Revision: multiplication and division** | Revise using short division to find unit fractions of amounts, including decimals, and round answers to money problems according to the |

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| | Number and place value; **STA** Statistics; **GPD** Geometry: position and direction | Weeks 25 and 26 focus on revision of: written algorithms for multiplication and division and mental strategies including the use of factors; finding fractions of amounts; and calculating mean average. | context; revise using long division to divide 4-digit by 2-digit numbers, giving remainders as a fraction, simplifying where possible; revise using long division to divide 3-digit and 4-digit numbers by numbers between 10 and 30, writing the fractional part of the answer as a decimal where equivalents are known; revise calculating the mean average; revise reading and marking coordinates in all four quadrants, draw simple polygons and find missing coordinates on a polygon or line |

## Year 6, Summer Term 2

| Wk | Strands | Progression Focus | Weekly Summary |
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| 27 | **NPV** Number and place value; **FRP** Fractions, ratio and proportion; **MEA** Measurement | **Revision: fractions; ratio**<br>Week 27 focuses on revision of: equivalence in fractions; and using this to add, subtract, multiply and divide fractions; and solving ratio problems. | Revise equivalence simplifying fractions and changing improper fractions into mixed numbers and vice versa; revise adding and subtracting fractions with different denominators, including those which give answers greater than 1; revise multiplying pairs of fractions and multiplying and dividing fractions by whole numbers; solving problems involving ratios; read intermediate points off scales |
| 28 | **GPS** Geometry: properties of shapes; **MEA** Measurement; **STA** Statistics | **Revision**<br>Week 28 focuses on revision of: properties of 2D shapes; angle types and theorems; perimeter, area and volume; 24-hour clock time intervals; and tables, graphs and charts. | Revise properties and classification of 2D shapes, drawing 2D shapes using ruler, protractor and compasses, parts of a circle and angles in polygons; revise calculating missing angles by knowing angle facts; use a protractor to measure and draw angles in degrees; identify and name acute, right, obtuse and reflex angles; understand perimeter, area and volume; find the perimeter of rectangles, find the area of rectangles, parallelograms and triangles, and find the volumes of cubes and cuboids; revise reading and interpreting different types of data display |
| 29 | **NPV** Number and place value; **PRA** Problem solving, reasoning and algebra; **GPD** Geometry: position and direction; **WMD** Written multiplication and division | **Further mathematical ideas**<br>Weeks 29 and 30 focus on exploration of a variety of interesting mathematical concepts and processes, including binary numbers and Napier's bones; playing with numbers, discovering patterns and solving mathematical puzzles. | Use mathematical reasoning to investigate and solve problems, and to estimate and predict; solve problems using doubling, solve calculations with enormous numbers; find out about famous mathematicians including Brahmagupta and John Napier and use their different methods to multiply; use lattice multiplication to solve multiplications of 2-, 3- and 4-digit numbers; begin to compare historical multiplication methods |
| 30 | **NPV** Number and place value; **PRA** Problem solving, reasoning and algebra; **GPS** Geometry: properties of shapes | **Further mathematical ideas**<br>Weeks 29 and 30 focus on exploration of a variety of interesting mathematical concepts and processes, including binary numbers and Napier's bones; playing with numbers, discovering patterns and solving mathematical puzzles. | Explore binary numbers; solve mathematical puzzles; including using multiplication facts, find digital roots and look for patterns; explore Fibonacci sequences and Pythagoras' theorem |