Numeracy Year 4 Long Term Plan

Autumn 1		
	Strands	**Weekly summary**
Autumn 1	Mental addition and subtraction **(MAS)**	Addition & subtraction using knowledge of number bonds to 100
	Number and place value **(NPV)**; Mental addition and subtraction (MAS)	Place value up to 4 digits Use of a number line to add & subtract Comparing using < & >
	Mental multiplication and division **(MMD)**; Fractions, ratio and proportion **(FRP)**	Using & applying tables knowledge in mental calculations (TU x U) Finding fractions of amounts
	Measurement **(MEA)**; Mental addition and subtraction **(MAS)**; Decimals, percentages and their equivalence to fractions **(DPE)**	Time to the nearest minute on analogue and digital clocks including time differences Measuring lengths & conversion facts including decimal notation
	Written addition and subtraction **(WAS)**	Add and subtract two 3-digit numbers using expanded column addition, use inverse operations to check answers

Autumn 2		
Week	**Strands**	**Weekly summary**
Autumn 2	Mental multiplication and division **(MMD);** Fractions, ratio and proportion **(FRP)**	Doubling & halving 3-digit numbers Equivalent fractions including reducing to simplest form.
	Number and place value **(NPV);** Written addition and subtraction **(WAS);** Decimals, percentages and their equivalence to fractions **(DPE)**	Place value in decimals Add two 4-digit numbers using written and mental addition methods
	Measurement **(MEA)**; Statistics **(STA)**	Convert weight & capacity involving measures to the nearest whole 100, e.g. 1400ml Read scales to the nearest 100ml including estimating, drawing bar charts
	Number and place value **(NPV);** Mental addition and subtraction **(MAS);** Written addition and subtraction **(WAS)**	Round numbers up 4 digits to the nearest: 10, 100 and 1000 Column subtraction (3-digits) Using inverse operations to count on for subtraction.
	Mental multiplication and division **(MMD);** Written multiplication and division **(WMD)**	Mental multiplication to multiply 3-digit by 1-digit numbers extending to written methods Begin to estimate products Divide numbers (2 digits) by 1-digit numbers with no remainder, then with a remainder.

Spring 1		
Week	**Strands**	**Weekly summary**
Spring 1	Number and place value **(NPV)**	Place 4-digit numbers on landmarked lines; round 4-digit numbers to the nearest 10, 100 and 1000; mentally add and subtract to/from 4-digit and 3-digit numbers; count on and back in multiples of 10, 100 and 1000; count on in multiples of 25 and 50; add and subtract multiples of 10 and 100 to/from 4-digit numbers.
	Mental multiplication and division **(MMD)**; Written multiplication and division **(WMD)**; Written addition and subtraction **(WAS)**;	Use formal written methods for subtraction of pairs 3-digit numbers; learn the 7x table; use written methods to multiply 3-digit numbers by 1-digit numbers
	Mental multiplication and division **(MMD)**; Fractions, ratio and proportion **(FRP)**	Use mental multiplication and division strategies; find complex fractions of 2-digit and 3-digit numbers e.g. ¾ 5/6; find equivalent fractions and use them to simplify fractions (halves, thirds, quarters)
	Geometry: properties of shape **(GPS)**	Recognise and compare acute, right and obtuse angles; draw lines of a given length; identify perpendicular and parallel lines; recognise and draw lines of symmetry in shapes; sort 2D shapes and draw shapes with given properties & criteria, including symmetry;
	Mental multiplication and division **(MMD)**; Written multiplication and division **(WMD)**; Mental addition and subtraction **(MAS)**	Mental division of 2 & 3-digit numbers by 1-digit numbers; divide numbers by 1-digit numbers to give answers between 10 and 25, with remainders; identify factor pairs and use these to solve multiplications and divisions with larger numbers; use number lines to find complements to multiples of 1000 including change from £10, £20 and £50
Week	**Strands**	**Weekly summary**
Spring 2	Decimals, percentages and their equivalence to fractions **(DPE)**; Number and place value **(NPV)**; Written addition and subtraction **(WAS)**	Recognise, use, compare and order decimal numbers; round decimals numbers to the nearest whole number; divide 2-digit numbers by 10 to get decimal numbers including decimal numbers; divide 3-digit multiples of ten by 100 to get decimal numbers and the inverse; add four digit numbers using written method with answers greater than 10,000
	Mental addition and subtraction **(MAS)**; Written addition and subtraction **(WAS)**; Decimals, percentages and their equivalence to fractions **(DPE)**	Add amounts of money using written methods and mentally, selecting the appropriate strategy; subtract, choosing appropriate mental strategies: counting up or taking away; solve subtractions using a suitable written method
	Measurement **(MEA)**	Tell the time on a 24 hour clock, using am and pm correctly; use 24 hour clock in calculating intervals of time; measure and calculate perimeters of straight-lined shapes where each side is labelled in cm and m; find missing lengths in straight-lined composite shapes; find the perimeters of straight-lined shapes with some lengths not marked; convert from one unit of length to another; solve word problems involving lengths including those involving perimeters
	Number and place value **(NPV)**; Written addition and subtraction **(WAS)**; Mental addition and subtraction **(MAS)**	Understand place value in 4-digit numbers including partitioning; solve subtraction of 4-digit numbers using column subtraction; choose an appropriate method to solve subtractions, either mental or written, and either column or number line
	Written multiplication and division **(WMD)**	Use written methods to multiply 3-digit numbers by 1-digit numbers; use mental strategies and tables facts to divide 2 & 3-digit numbers by 1-digit numbers to give answers between 10 and 35, without remainders; solve word problems

Summer 1		
	Strands	**Weekly summary**
Summer 1	Number and place value **(NPV)**	Read, write and compare 4-digit numbers, writing numbers in between and placing them on a line; find 1000 more or less than any given number; read, write and compare 5-digit numbers; recognise what each digit represents in a 5-digit number; read, use and compare negative numbers in the context of temperature
	Decimals, percentages and their equivalence to fractions **(DPE)**	Multiply and divide numbers by 10 and 100 including decimals (tenths and hundredths); read and write decimals (to 1 and 2 places), understanding that these represent parts (tenths and hundredths) of numbers; mark one and two place decimals on a line; count in tenths (0.1s) and hundredths (0.01s); say the number one tenth (0.1) and one hundredth (0.01) more or less than a given number; round decimal numbers to the nearest whole number
	Mental multiplication and division **(MMD)**; Written multiplication and division **(WMD)**; Number and place value **(NPV)**	Learn 11 and 12x tables; revise all times tables; develop and use effective mental multiplication strategies; use rounding to estimate answers; use a written method to multiply 3-digit numbers, including amounts of money by 1-digit numbers; multiply 2-digit and 3-digit numbers by 1-digit numbers; understand how division 'undoes' multiplication and vice versa; divide above the tables facts using multiples of ten
	Number and place value **(NPV)**; Geometry: properties of shapes **(GPS)**; Measurement **(MEA)**	Recognise and write Roman numerals to 100; begin to know the history of our number system including zero; calculate area and perimeter of different shapes; recognise, name and classify 2D shapes identifying polygons, regular and irregular; sort 2D and 3D shapes according to properties including types of quadrilaterals and triangles
	Decimals, percentages and their equivalence to fractions **(DPE)**; Fractions, ratio and proportion **(FRP)**	Understand, read and write two place decimals; compare two place decimals in the context of lengths; add and subtract 0.1 and 0.01; say a number one tenth (0.1) and one hundredth (0.01) more or less than a given number; round decimals to nearest whole number; write fractions with different denominators with a total of 1; recognise decimal and fraction equivalents
Week	**Strands**	**Weekly summary**
Summer 2	Mental addition and subtraction **(MAS)**; Mental multiplication and division **(MMD)**; Written multiplication and division **(WMD)**	Mentally add a 2-digit number to a 2-, 3- or 4-digit number; subtract 2-, 3-, and 4-digit numbers using counting up; derive factors of 2-digit numbers; use factors and doubling to solve multiplication mentally; solve division using mental strategies; understand that division and multiplication are inverse operations; solve word problems, including 2-step problems, choosing an appropriate method
	Written addition and subtraction **(WAS)**; Mental addition and subtraction **(MAS)**	Solve written addition of two 4-digit numbers; add amounts of money using column addition; solve 4-digit subtractions using written column method (decomposition); solve 4-digit – 3-digit subtractions using written column method (decomposition); check subtraction using addition; solve word problems choosing an appropriate method
	Geometry: position and direction **(GPD)**; Statistics **(STA)**	Use co-ordinates to draw polygons and find missing co-ordinates of shapes; draw and interpret bar charts and pictograms; draw line graphs and understand that intermediate points have meaning
	Written multiplication and division **(WMD)**; Fractions, ratio and proportion **(FRP)**; Decimals, percentages and their equivalence to fractions **(DPE)**	Use formal written methods to multiply 3-digit numbers by 1-digit numbers; find non-unit fraction of amounts; add fractions with like denominators, including totals greater than 1; divide by 10 and 100 (to give answers with 1 and 2 decimal places)
	Written multiplication and division **(WMD)**; Mental multiplication and division **(MMD)**; Fractions, ratio and proportion **(FRP)**	Multiply 2-digit numbers by 11 and 12; multiply 2-digit numbers by numbers between 10 and 20 using the grid method; begin to use the grid method to multiply pairs of 2-digit numbers; use mental strategies and tables facts to divide 2-digit and 3-digit numbers by 1-digit numbers with and without remainders; find fractions of amounts