NEW NC Year 1/2/3/4 Spring Medium Term Plan

Topic	Year 1	Year 2	Year 3	Year 4
Number Concepts	• One more and one less than 2-digit number • Find one more/less than any 2-digit number • Make a sensible estimate up to 100 (e.g. choosing from 10, 20, 50 or 100). • Find ten more and ten less than and 2-digit number • Recognise and describe what is happening to the multiples of ten on the number grid. • Recognise odd and even numbers up to 20. • Sort numbers up to 20 into odd and even. • Show a 2-digit number by combining groups of ten and one • Locate numbers on a beaded line • Know what each digit means in a 2-digit number and estimate a number of objects and group in tens when counting to check. • Compare two numbers less than 100, say which is more or less. • Give a number between two neighbouring multiples of 10.	• Mark 2-digit numbers on a landmarked line (labelled in 10s). • Round 2-digit numbers to nearest multiple of 10. • Make comparisons about two 2-digit numbers eg < and > • Describe properties of numbers and locate numbers on a number line and find a number in-between 2 given numbers • Identify properties of numbers and use this to sort them. • Use ordinal numbers in context up to 10^{th} and beyond and solve problems using ordinal numbers	• Place 3-digit numbers on a 0-1000 line and initially between multiples of 100 on landmarked lines. • Know what each digit represents in a 3-digit number and use 0 as a placeholder. • Round 3-digit numbers to the nearest 10. • Compare two 3-digit numbers. • Order three 3-digit numbers using place value. • Solve a problem using knowledge of place value. • Multiply and divide by 10 and 100 and know how to use place value to help with multiplying and dividing. • Know what each digit represents in a 3-digit amount of money. • Multiply and divide amounts of money less than £1 by 10 and 100. • Know that every operation has an inverse and perform 2-step operations.	• Understand what each digit represents in a number with one decimal place • Place one-place decimals on a number line. • Compare 1-place decimals and write one in between, e.g. 2.1 and 1.2 and say what whole number comes between these two. • Round tenths to nearest whole. • Recognise decimal and fraction forms of tenths. • Add and subtract 0.1 and 1 to/from numbers with one decimal place • Understand that when we divide by 10, digits shift one place to the right • Understand that when we multiply by 10, digits shift one place to the left. • Multiply and divide by 10 and 100 (whole answers or with 1dp) • Multiply multiples of 10 and 100 by single-digit numbers • Use negative numbers in context of temperature • Place negative numbers on a line • Order positive and negative numbers

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Mental Addition and Subtraction	• Find addition pairs to 7, 8, 9 and 10 and record the number pairs as addition number sentences. • Relate addition and subtraction number bonds by discussing the relationship between the numbers used and write the corresponding subtraction number sentences. • Know number bonds to 8 by heart. Write number bonds as number sentences and know that addition can be done in any order. • Know number bonds to 9 by heart. Write number bonds as number sentences and know that addition can be done in any order. • Know all number bonds to 10.	• Add a single-digit number to a 2-digit number, bridging 10. • Subtract a single-digit number from a 2-digit number, bridging 10. • Use number facts or place value to add and subtract • Add 5 small numbers spotting pairs to 10 or doubles	• Add pairs of 2-digit numbers using a variety of strategies. • Add 3 2-digit numbers. • Subtract near multiples of 10 from a 2-digit number. • Subtract any 2-digit number from another, using counting up. • Select an appropriate strategy to subtract. • Use number facts to add a single-digit number to a 3-digit number eg 313 + 6 • Cross the 10s borders when adding eg 316 + 8 • Add multiples of 10 and 100 to 3-digit numbers, crossing the 10s and 100s barriers eg 375 + 30, 567 + 300 • Use number fact to subtract a single-digit number from a 3-digit number eg 248 - 4 • Cross the 10s borders when subtracting eg 243 - 6 • Subtract multiples of 10 and 100 to 3-digit numbers, crossing the 10s and 100s barriers eg 345 – 50, 567 - 300	• Add single-digit numbers to four-digit numbers, bridging multiples of 10, 100 and 1000 • Add multiples of 10, 100 and 1000 to four-digit numbers, crossing 10s, 100s but not crossing 10,000 • Subtract single-digit numbers from four-digit numbers, bridging multiples of 10, 100 and 1000 • Subtract multiples of 10, 100 and 1000 from four-digit numbers, crossing 10s and 100s • Understand inverse operations, how subtraction 'undoes' addition for example

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Written addition	• Use pairs to ten to bridge ten with the support of bead strings and beaded lines • Add three small numbers, spotting pairs to ten, doubles and understand that changing the order of addition does not change the total. • Add 10, 20 or 30 to any 2-digit number (answers less than 100). • Know the value of each coin to £1 • Find totals of 2 and 3 coins to 10p • Begin to find all possibilities by making an ordered list • Find ways to pay up to 10p. • Use pairs to ten to bridge ten with the support of money lines. • Add coins and amounts which total more than 10p. • Find totals of single-digit prices using known facts or counting on, including bridging 10p. • Add 10p and 20p to 2-digit prices, answers less than £1.	• Add 2-digit numbers by partitioning or empty number line • Add 10 eg 32 + 10 • Add multiple of 10 eg 32 + 40 • Add teens numbers 32 + 14 • Add teens crossing the 10's barrier eg 36 + 18 • Add two digit number not crossing 10's barrier 34 + 42 • Add 2-digit numbers where the ones will cross the 10s barrier eg 37 + 48 • Decide whether a word problem requires addition or subtraction to solve it • Recognise all coins • Use coins to make 2-digit amounts • Add 2-digit money amounts using partitioning	• Add two 3-digit numbers using expanded addition including additions that give a 10 in the 1s column eg 345 + 237 • Add two 3-digit numbers using expanded addition including additions that give a 10 in the 1s column OR give 100 in the 10s column. eg 345 + 373 • Add two 3-digit numbers using expanded addition. • Begin to use compact addition. • Interpret a word problem. • Use addition to solve a word problem.	• Use compact addition to add three 2-digit numbers • Use rounding to estimate totals • Use compact addition to add four 2-digit numbers • Use compact addition to add three 3-digit numbers • Approximate the answer first • Use compact addition to add amounts of money with one 'carry', e.g. £3.25 + £2.68 • Use rounding to estimate the total before carrying out the addition • Use compact addition to add amounts of money with two 'carries', e.g. £3.45 + £2.68

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Written subtraction	• Subtract 10, 20 or 30 from 2-digit numbers • Find the difference between two towers of cubes. • Find towers have a difference of 3. • Find change from 10p by counting on and using number bonds. • Find the difference between amounts of money less than 20p, with a difference of 5p or less.	• Subtract 2-digit numbers by counting up to find the difference • Subtract 10 eg 32 - 10 • Subtract multiple of 10 eg 82 - 40 • Subtract teens numbers eg 38 - 14 • Subtract two digit number not crossing 10's barrier eg 94 - 42 • Subtract 2-digit numbers where the ones will cross the 10s barrier eg 92 – 48 • Find change from 50p using pairs to 10. • Find change by counting up to find a difference • Decide whether a word problem requires addition or subtraction to solve it	• Subtract using counting up on the empty number line. • Use addition to check subtraction. • Interpret a word problem. • Use counting up subtraction to solve a word problem	• Use finding the difference eg counting up on an empty number line to subtract 3-digit numbers, e.g. 414 – 278 • Find the change from £5 and from £10 • Find a difference between prices, e.g. £4.24 and £3.78 • Subtract pairs of three-digit numbers using expanded decomposition (one 'carry') eg 352 – 128 or 457 - 263 • Subtract pairs of three-digit numbers using expanded or compact decomposition (one 'carry') • Subtract any pair of three-digit numbers using expanded or compact decomposition (two 'carries') 623 - 367 • Check subtraction with addition • Subtract any pair of 3-digit numbers using written or mental method

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Mental Multiplication and Division	• Count in 10s from 10 • Count in tens from any number • Find missing multiples of ten in a sequence • Count in 2s from different starting numbers. • Recognise a sequence and continue it.	• Count in 2s, 5s and 10s from any number to 100. • Recognise multiples of 2, 5 and 10. • Describe patterns and begin to investigate general statements	• Know the 4 times table. • Use the 4 times table to learn the 8 times table. • Know multiplying by 8 is the same as doubling twice. • Know dividing by 8 is the same as halving and halving again.	• Know multiplication and division facts for the 9 times table • Begin to know multiplication and division facts for the 7 times table • Use commutativity and known facts to derive new multiplication facts • Know the 11 and 12 times tables • Know most multiplication facts up to 12 and use commutativity and known facts to derive others • Find factors of numbers up to 40 • Multiply single-digit numbers by multiples of 10 and 100 eg 4 x 60 6 x 300

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Multiplication	• Find doubles to double 6 and record as an addition; begin to know by heart. • Use these facts to work out near doubles. • Double numbers up to 20 and explain what they are doing by doubling.	• Understand multiplication as repeated addition. • Record multiplication facts for the 5 times table. • Use multiplication sentences to describe an array and groups of numbers on a number line. • Imagine what action would be needed to solve a word problem and decide what calculation is necessary (multiplication or division). • Draw arrays and number lines to create multiplication word problems	• Know the 2, 3, 4, 5, 8, 10 times tables off by heart and understand that multiplication can be done in any order.	• Use the grid method (set out vertically so answers can be added in a column underneath) to multiply 3-digit numbers by single-digit numbers • Use expanded column to multiply 3-digit numbers by single-digit numbers • Use rounding to approximate an answer

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Division	•	• Understand grouping and lots of as one model of division. • Begin to understand that division can leave some left over eg remainder • Use division sentences to describe groups of numbers on a number line. • Imagine what action would be needed to solve a word problem and decide what calculation is necessary (multiplication or division). • Draw arrays and number lines to create division word problems • Understand that division is the inverse of multiplication and use this to check answers	• Divide whole numbers by 2, 3, 4, 5, 8 or 10, using times tables. • Know which calculation to perform (multiplication or division) in order to solve a word problem. • Use multiplication or division to solve a word problem	• Divide 2-digit numbers by single-digit remainders, including those divisions which give a remainder (answers between 10 and 30)

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Fractions	• Find half of numbers up to 24 (links to odds and evens) and understand why it is tricky to halve odd numbers.	• Find ½ and ¼ of numbers using objects then by halving and halving again • Find ½, ¼ and 1/3 of amounts by grouping on an empty number line	• Count in halves and quarters. • Locate halves and quarters on a 0–10 number line. • Understand fraction of shapes and begin to understand fraction of number. • Understand that fractions are part of a whole. • Understand the larger the denominator the smaller the fraction. • Find unit-fractions using knowledge of multiplication and division: 1/2, 1/4, 1/3, 1/5, 1/8, 1/10. • Find non-unit fractions using knowledge of multiplication and division: halves, quarters, thirds, fifths, eights and tenths	• Identify fractions equivalent to one half • Identify fractions equivalent to one quarter • Identify equivalent fractions up to twelfths with a supporting image • Identify equivalent fifths, tenths and halves and mark them on a line • Reduce fractions to their simplest form • Identify equivalent fractions and decimals (0.1s, 1/10s and 1/2s) • Add and subtract fractions with the same denominators with 2 wholes using a fraction line

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Measures	• Compare weights using direct comparison. • Order different weights. • Estimate and find objects that are heavier and lighter. • Use uniform non-standard units to measure weight and estimate how heavy an object is using uniform non-standard units. • Measure objects accurately using cubes and compare lengths. • Measure lengths of string in cubes, including wiggly lines. • Estimate and compare lengths. • Find the difference in length using uniform, non-standard units (cubes). • Compare and discuss capacities, by direct comparison and understand the vocabulary relating to capacity. • Estimate, measure and compare capacities, using cups. • Use a uniform, non-standard unit to measure capacity. • Find containers that hold a greater capacity and order different capacities. • Order capacities from least to greater. • Understand how to read a pictogram. Create a pictogram and write a sentence describing what it shows. – link to capacity • Create a block graph and analyse the results.	• Compare weights and measure weight using uniform non-standard units • Know that weight can be measured in kg and g. • Measure weights to the nearest 100g using 100g weights • Compare objects with the 100g and kg weights and develop a sense of how heavy these weights are. • Estimate and measure capacity in cupful's. • Begin to have a sense of a litre and make comparisons between other amounts. • Estimate which containers hold more or less than a litre.	• Measure lengths in m, cm and mm and record. • Convert cm into m and cm into mm. • Establish weight benchmarks (1kg and 100g) and make estimates. • Estimate the order of weights. • Read scales to the nearest 100g. • Choose appropriate units of measurement to measure objects.	• Measure lengths in m and cm and record using a decimal point • Convert cm into m • Measure lengths in cm and mm to one decimal place • Convert lengths from km to m and mm to cm • Use weight benchmarks to assist with estimating • Weigh items in g and kg to the nearest 100g • Convert from kg to g and from g to kg • Estimate the order of weights • Read scales to one decimal place

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Time	• Tell the time to the hour and half hour. • Describe what would be happening at different times of the day. • Find the time half an hour later.	• Telling the time to quarter past and quarter to • Have an idea of the length of 15, 30 and 60 seconds. • Time events in minutes.	• Tell the time to the nearest minute, past and to. • Read analogue and digital time and convert between the two. • Tell the time on analogue and digital clocks and match corresponding times. • Convert between reading analogue and digital times. • Find the time a number of minutes later some crossing the hour. • Calculate time intervals, some crossing the hour. Work out time problems.	• Tell the time on an analogue clock using am and pm • Begin to use 24-hour clock and recognise matching times • Convert analogue times into digital • Convert 24-hour times into 12-hour am/pm times • Calculate time intervals using 24-hour clock, crossing the hour • Read and work out time intervals on a 24-hour timetable
Geometry and Statistics		• Draw and interpret a block graph. • Draw and interpret a pictogram	• Understand angles as degrees of turn. • Use the language clockwise and anticlockwise. • Know that a right angle is a quarter turn and four a complete turn. • Collect, record and interpret data in a bar chart when one step represents several units.	• Choose appropriate units of measurement to measure objects • Collect, record and interpret data in a bar graph, choosing a suitable scale • Plot and write co-ordinates in the first quadrant • Complete polygons by giving missing points • Describe translations of shapes on a grid and write new co-ordinates