Abacus Year 3 Draft Teaching Overview

Autumn 1				
Week	**Strands**	**Weekly summary**		
1	Mental addition and subtraction **(MAS)**	Use multiple of 5 and 10 bonds to 100 to solve additions and subtractions; add and subtract 1-digit numbers to and from 2-digit numbers	Lesson 1 Know bonds to 10 and multiple of 10 bonds to 100, use to solve additions and subtractions; Recognise subtraction undoes addition (S: Telling the time to o'clock, half past, quarter past and quarter to)	• recognise and use bonds to 10 • recognise and use multiple of 10 bonds to 100.
			Lesson 2 Learn to work out any multiple of 5 bond to 100 (S: Bonds to 10)	• recognise and use bonds to 10 to help derive multiple of 5 bonds to 100 • understand that when you work out a 2-digit number ending in 5 bond to 100 the 10s numbers will need to total 90.
			Lesson 3 Use mental strategies to add several small numbers; Add several numbers spotting bonds to 10 and doubles and adding 9 or 11 by adding 10 and correcting, etc (S: Double numbers 1–12)	• recognise and use number bonds and doubles to solve additions of three or four small numbers • recognise and use bonds of numbers to 10.
			Lesson 4 Add and subtract 1-digit numbers to and from 2-digit numbers using number patterns (7 + 5 = 12, 37 + 5 = 42; 12 − 5 = 7, 32 − 5 = 27, etc) and bridging ten (S: Bonds to numbers up to 12)	• recognise and use bonds to solve additions and subtractions of 1-digit numbers to and from 2-digit numbers.
			Lesson 5 Add and subtract a 1-digit number to and from a 2-digit number, identify patterns and begin to predict addition and subtraction answers based on knowledge of bonds (S: Bonds to numbers up to 20)	• recognise and use bonds to add and subtract a 1-digit number to and from a 2-digit number • begin to spot number patterns and explain these using their knowledge of number bonds.
2	Number and place value **(NPV)**; Mental addition and subtraction **(MAS)**	Compare and order 2- and 3- digit numbers; count on and back in 10s and 1s; add and subtract 2-digit numbers	Lesson 6 Understand place value of 2- and 3-digit numbers; Understand that 3-digit numbers are made of 100s, 10s and 1s; Use 0 as a place-holder (S: Subtract 1-digit numbers from 2-digit numbers using knowledge of bonds)	• read and write 3-digit numbers • correctly identify the number of 100s, 10s and 1s in a 3-digit number • begin to 'zap' digits by subtracting the 10s or the 100s or the 1s.
			Lesson 7 Use greater than > and less than < signs correctly between two 3-digit numbers; Identify the number of 100s, 10s and 1s in a 3-digit number and use to compare and order numbers (S: Tell the time to quarter to on analogue and digital clocks)	• recognise 100s, 10s and 1s in 3-digit numbers and use them to compare and order numbers • use greater than > and less than < signs correctly in a number sentence.

			Lesson 8 Add and subtract multiples of 10 and near multiples of 10 to and from 2-digit numbers (S: Count on and back in 10s and 1s)	• add and subtract multiples of 10 by counting on and back in 10s or using number facts • add and subtract near multiples of 10 by counting on and back in 10s or using number facts and correcting by adding or subtracting the extra 1.
			Lesson 9 Add and subtract pairs of 2-digit numbers using number facts; Count on and back in 10s and 1s (S: Add several small numbers)	• recognise and use bonds to solve additions and subtractions of 2-digit numbers • add and subtract 2-digit numbers using number facts and counting on and back.
			Lesson 10 Add and subtract a 2-digit number to or from a 2-digit number (S: Add a 1-digit number to a 2-digit number using number facts and bonds to 15)	• add and subtract 2-digit numbers to and from 2-digit numbers • work systematically • show logical reasoning skills, deduction, discuss and share work.
3	Mental multiplication and division **(MMD)**	Know multiplication and division facts for the 5, 10, 2, 4 and 3x tables; doubling and halving	Lesson 11 Know multiplication and division facts for the 5 and 10 times-tables (S: Counting on in twos)	• recall and use multiplication facts for the 5 and 10 times-tables immediately • derive division facts really quickly.
			Lesson 12 Revise multiplication facts for the 2 times-table and begin to learn multiplication facts and corresponding division facts for the 4 times-table (S: Recognise odd and even numbers)	• begin to know multiplication facts and derive division facts for the 4 times-table • relate the 4 times-table to the 2 times-table.
			Lesson 13 Know multiplication and division facts for the 3 times-table (S: Count in 3s)	• recall multiplication facts and derive division facts for the 3 times-table • begin to relate the 6 times-table to the 3 times-table.
			Lesson 14 Know doubles to double 20 and derive corresponding halves (S: Doubles to double 12)	• recall doubles of numbers 1 to 20 and derive the related halves • apply reasoning skills when choosing numbers that will give the longest chains.
			Lesson 15 Halve even numbers up to 40 and halve odd numbers up to 20 (S: Doubles 10 to 20)	• halve any even number up to 40 using partitioning • halve any odd number up to 20.
4	Measurement **(MEA)**;	Know and understand the	Lesson 16 Read a calendar; Know the relationship between	• read simple calendars and

		calendar, including days, weeks, months, years; tell the time to the nearest 5 minutes on analogue and digital clocks; know the properties of 3D shapes	days, weeks, months, years and leap years (S: Bonds to 100)	• understand how they work • find a time interval in months, and in weeks and days.
	Geometry: properties of shapes **(GPS)**		Lesson 17 Revise telling the time to the quarter hour on analogue and digital clocks (S: Pairs to 60)	• read the time to the quarter hour on analogue and digital clocks • write equivalent digital times when given analogue times, and vice versa.
			Lesson 18 Tell the time to 5 minutes on both analogue and digital clocks (S: Count in 5s around the clock)	• read the time to the nearest five minutes (past and to the hour) on digital and analogue clocks.
			Lesson 19 Describe and sort 3D shapes (S: Tell the time using the analogue clock)	• classify and name 3D shapes • describe the properties of 3D shapes.
			Lesson 20 Name and describe 3D shapes, including using the terms: faces, edges and vertices (S: Add two-digit numbers by counting on in 10s and 1s)	• name and describe 3D shapes • understand and use the terms: faces, edges and vertices.
5	Number and place value **(NPV)**; Mental addition and subtraction **(MAS)**	Compare, order and understand place value of 2- and 3-digit numbers; subtract from 2- and 3-digit numbers; using prediction to estimate calculations	Lesson 21 Place 2- and 3-digit number on a landmarked (10s) line (0–100); Identify the 100s in a 3-digit number; Order 2- and 3-digit numbers (S: Order 2-digit numbers)	• read and locate 2-digit numbers on a landmarked line • read and locate 3-digit numbers on a landmarked line.
			Lesson 22 Identify the 100s a 3-digit number lies between; Use 'greater than' and 'less than' signs correctly between two 3-digit numbers Identify the number of 100s, 10s and 1s in a 3-digit number (S: 4 times-table)	• read and write 3-digit numbers • say the 100s and 10s number any 3-digit number lies between • use 'greater than' and 'less than' signs correctly in a number sentence.
			Lesson 23 Rounding 3-digit numbers to nearest 10 (S: Counting in 3s)	• round 3-digit numbers to nearest 10 • read and locate 3-digit numbers on a landmarked line.
			Lesson 24 Subtract by finding a difference (counting up from smaller to larger number) gaps under 12 (S: Add to the next 10)	• subtract two 2-digit numbers (gaps under 12) by counting up • hop to next 10 then on.
			Lesson 25 Identifying numbers with a difference of 10; Make predications and generalisations (S: Multiple of 5 bonds to 100)	• use frog jumping to perform counting up subtractions • spot patterns, explain and predict ideas showing work as support, show logical reasoning skills and discuss and share work • think about the number system beginning to make generalisations.
Autumn 2				

Week	Strands	Weekly summary		
6	Mental multiplication and division **(MMD)**; Fractions, ratio and proportion **(FRP)**	Double and halve numbers up to 100 using partitioning; understand fractions and fractions of numbers	Lesson 26 Double numbers to 50 using partitioning (S: Know doubles to double 20 by heart)	• double 2-digit numbers up to 50.
			Lesson 27 Halve even numbers to 100 using partitioning (S: Halve odd numbers to 19)	• halve even numbers to 100, using partitioning • understand the relationship between doubling and halving.
			Lesson 28 Understand fractions as parts of wholes (S: Place numbers on a 0–100 line)	• understand the concept of a fraction, realising that each part must be equal • write unit fractions • realise that a unit fraction with a larger denominator is smaller than a unit fraction with a smaller denominator.
			Lesson 29 Find fractions of amounts using fraction strips (S: Tell the time to the quarter hour and also to 5 minutes)	• use strips to find $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$ of multiples of 2, 3 and 4 • find several quarters and thirds of amounts.
			Lesson 30 Investigate finding which numbers can be split into thirds and which can be split into quarters (S: Mixed numbers)	• look for patterns and relationships, and make predictions • begin to see the relationship between finding fractions of amounts and division.
7	Mental addition and subtraction **(MAS)**; Measurement **(MEA)**	Use money to add and subtract and record using the correct notation and place value; add and subtract 2-digit numbers using partitioning; add three 2-digit numbers by partitioning and recombining	Lesson 31 Identify name and use all coins (1p, 2p, 5p, 10p, 20p, 50p, £1, £2) to make amounts; Use correct £p notation (S: Count in halves and quarters)	• read and write amounts of money using correct £.p. notation, (no zeros i.e. not £3·05) • make amounts of money using minimum coins • name and know value of all coins (1p–£2).
			Lesson 32 Read and record amounts of money using standard notation, including use of zero ie £3·05; Use place value to solve additions and subtractions of amounts of money (S: Subtraction with Frog)	• recognise £s/10ps/1ps in a given amount of money • convert pounds to pence, i.e. know £2·83 = 283p • use money notation • add amounts of money using knowledge of place value • subtract amounts of money using knowledge of place value.

			Lesson 33 Derive number that adds to total 100 from any 1- or 2-digit number (S: Bonds to 10 and 20)	• derive bonds to 100 from any number under 100 • use knowledge of bonds to add to the next multiple of 10 and then on to 100.
			Lesson 34 Add and subtract pairs of 2-digit numbers using partitioning adding the 1s, then the 10s (S: Counting in fives from any number)	• add and subtract 2-digit numbers using partitioning and recombining • partition 2-digit numbers into 1s and 10s • recognise and use bonds to solve additions and subtractions of 2-digit numbers.
			Lesson 35 Add three 2-digit numbers by partitioning and recombining (1s digits total a number greater than 10 and 10s digits total a number greater than 100) (S: Add multiples of 10 (answers over 100))	• add two 2-digit numbers using partitioning • add three 2-digit numbers using partitioning.
8	Measurement (MEA)	Choose an appropriate instrument to measure a length and use a ruler to estimate, measure and draw to the nearest centimetre; know 1 litre = 1000 ml; estimate and measure capacity in millilitres	Lesson 36 Choose an appropriate instrument for measuring a particular length and use a ruler to measure to nearest centimetre (S: Know relationship between centimetres and metres)	• use a ruler to measure to the nearest cm • recognise that a ruler, metre stick and tape measure are all used to measure length • write measurements using the convention cm.
			Lesson 37 Estimate and measure length to nearest centimetre (S: Know relationship between centimetres and millimetres)	• use a ruler to measure to the nearest cm (or $\frac{1}{2}$#cm or mm) • estimate lengths to nearest cm • understand relationship between mm, cm and m.
			Lesson 38 Draw a line to a given length in centimetres (S: Counting in 3s)	• draw a line to a given length in centimetres • draw a line to a given length to half a centimetre • draw a line to given length in millimetres.
			Lesson 39 Know 1 litre = 1000 ml and measure capacity in units of 100 ml (S: 4 times-table)	• understand and know 1000#ml = 1#l • read capacity to 100#ml • read capacity to 50#ml.
			Lesson 40 Estimate and measure capacity in millilitres to the nearest 100 ml (S: Revise relationship between millilitres (ml) and litres (l))	• estimate and measure capacity to nearest 100#ml • estimate and measure capacity to

				nearest 50#ml.
9	Number and place value **(NPV)**; Mental addition and subtraction **(MAS)**	Place 2- and 3-digit numbers on a number line; round 3-digit numbers to nearest 100; use counting up to do mental subtractions with answers between 10 and 20, 10 and 30, and either side of 100	Lesson 41 Place 2-digit and 3-digit numbers on an empty number line (S: Matching times)	• mark and identify numbers on an empty 0–100 line • mark and identify numbers on an empty line marked with two consecutive multiples of 100.
			Lesson 42 Place 3-digit numbers between multiples of 100 on a line and round to nearest 100 (S: Compare pairs of three-digit numbers)	• place 3-digit numbers between multiples of 100 on a line with reasonable accuracy • round 3-digit numbers to the nearest 100, placing them on a line to help.
			Lesson 43 Using counting up as a strategy to perform mental subtractions with answers between 10 and 20 (S: Adding to the next 10)	• use counting up to subtract a pair of 2-digit numbers where the answer is between 10 and 20 • spot and describe a pattern.
			Lesson 44 Using counting up as a strategy to perform mental subtractions with answers between 10 and 30 (S: Count back in 1s and 10s)	• use counting up to subtract a pair of 2-digit numbers where the answer is between 20 and 30 • use number facts and place value.
			Lesson 45 Using counting up as a strategy to subtract numbers either side of 100 (S: Bonds to 100)	• subtract pair of numbers either side of 100 by counting up • use number facts and place value to help.
10	Mental addition and subtraction **(MAS)**; Mental multiplication and division **(MMD)**	Revise times-tables learned and derive division facts; perform division with remainders; choose a mental strategy to solve additions and subtractions; solve word problems	Lesson 46 Revise all tables learned so far and derive division facts (S: Count back in 1s and 10s)	• use multiplication facts for the 2, 3, 4, 5 and 10 times-tables and can derive the corresponding division facts • use commutativity to derive multiplication facts using known facts • understand the relationship between multiplication and division.
			Lesson 47 Find remainders after division (S: 3 and 4 times-tables)	• understand that a remainder is the amount left over after a division • begin to understand the patterns of remainders • begin to relate remainders to multiples of a given number.
			Lesson 48 Perform division with remainders (within known times-tables) (S: Place value in 3-digit numbers)	• divide 2-digit numbers by 2, 3, 4, 5 and 10, finding a remainder • begin to understand the patterns of remainders

					• begin to relate remainders to multiples of a given number.
			Lesson 49 Choose a mental strategy to solve additions and subtractions (S: Add two or three small numbers using mental strategies)		• be secure with at least one mental strategy for each of addition and subtraction • choose a mental addition or subtraction strategy according to the numbers involved or personal preference.
			Lesson 50 Solve word problems, deciding whether addition or subtraction is needed (S: Add and subtract multiples of 10)		• identify the calculation (addition or subtraction) needed to solve a word problem.
Spring 1					
Week	**Strands**	**Weekly summary**			
11	Number and place value **(NPV)**	Rehearse place value in 3-digit numbers, order them on a number line and find a number in between; compare number sentences; solve additions and subtractions using place value; multiply and divide by 10 (whole number answers); count in steps of 10, 50 and 100	Lesson 51 Rehearse place value in 3-digit numbers and place on a number line (S: Place 2-digit numbers on an empty number line)		• read and locate 3-digit numbers on a landmarked line • say what each digit in a 3-digit number represents.
			Lesson 52 Order numbers, find a number in between and compare number sentences (S: Balancing sums)		• compare pairs of 3-digit numbers and find a number in between • use the > and < sign when comparing numbers and place-value additions.
			Lesson 53 Place-value additions and subtractions (S: Compare pairs of 3-digit numbers and write a number in between)		• use place value and number facts to add and subtract multiples of 10 and 100 (not crossing 100s or 1000).
			Lesson 54 Multiply and divide by 10 (whole-number answers) (S: Selecting the correct coins)		• multiply and divide whole numbers by 10 (whole-number answers) and describe what happens to each digit.
			Lesson 55 Count in steps of 10, 50 and 100 (S: Repeatedly add a single-digit number)		• count in steps of 10, 50 and 100 from 0, then other numbers • solve mathematical problems and spot patterns.
12	Mental addition and subtraction **(MAS)**; Mental multiplication and division **(MMD)**	Add pairs of 2-digit numbers using partitioning (crossing 10s, 100 or both) and then extend to add two 3-digit numbers (not crossing 1000); recognise and sort	Lesson 56 Add pairs of 2-digit numbers using partitioning (crossing 10s, 100 or both) and extend to add two 3-digit numbers (S: Add multiples of 10 using facts for single-digit numbers)		• add any pair of 2-digit numbers using partitioning (crossing 10s, 100 or both) • recognise and use bonds to solve additions of 2-digit numbers.
			Lesson 57 Add pairs of 3-digit numbers using partitioning (crossing 10s or 100s but not 1000) (S: Draw a line of given		• use partitioning to add pairs of 3-digit numbers.

		multiples of 2, 3, 4, 5, and 10; double the 4 times table to find the 8 times table; derive division facts for the 8 times table; multiply and divide by 4 by doubling or halving twice	length and measure lines)	
			Lesson 58 Recognise and sort multiples of 2, 3, 4, 5, and 10 (S: 3 and 4 times-tables)	• recognise multiples of 2, 3, 4, 5 and 10 • sort numbers according to whether they are multiples of a given number or not • understand that some numbers are multiples of several numbers.
			Lesson 59 Double the 4 times-table to find the 8 times-table and derive division facts for the 8 times-table (S: Multiply by 10)	• begin to use the 4 times-table to work out the 8 times-table.
			Lesson 60 Multiply and divide by 4 by doubling or halving twice (S: Count in steps of $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$)	• multiply 2-digit numbers by 4 by doubling twice • divide 2-digit numbers by 4 by halving twice (whole number answers).
13	Fractions, ratio and proportion **(FRP)**	Identify 1/2s, 1/3s, 1/4,s 1/6s, and 1/8s; realise how many of each make a whole; find equivalent fractions; place fractions on a 0 to 1 line; find fractions of amounts	Lesson 61 Identify $\frac{1}{2}$s, $\frac{1}{3}$s, $\frac{1}{4}$s $\frac{1}{6}$s and $\frac{1}{8}$s and realise how many of each make a whole (S: Tell the time to the nearest 5 minutes)	• identify $\frac{1}{2}$s, $\frac{1}{3}$s, $\frac{1}{4}$s, $\frac{1}{6}$s and $\frac{1}{8}$s • say what is needed to make one whole.
			Lesson 62 Find equivalent fractions (S: Find a difference between pairs of 2-digit numbers)	• identify equivalent fractions with visual support.
			Lesson 63 Place fractions on a 0 to 1 line (S: Add pairs of 2-digit numbers)	• mark and identity simple fractions on 0 to 1 lines.
			Lesson 64 Find fractions of amounts(S: Multiply by 4 by doubling twice)	• find fractions of amounts, using fraction strips to help.
			Lesson 65 Find fractions of amounts (S: 8 times table)	• find fractions of amounts using arrays.
14	Geometry: properties of shapes **(GPS)**; Geometry: position and direction **(GPD)**; Measurement **(MEA)**	Recognise right angles and know they are 90⁰; understand angles are measured in degrees; recognise º as the symbol for the measurement of degrees; name and list simple properties of 2D shapes; begin to understand and use the term perimeter to mean the length/distance around the edge (border)	Lesson 66 Identify right angles and know they measure 90°; Recognise and use the degree symbol (°) and begin to identify angles as more or less than a right angle (90°) (S: Convert metres, centimetres and millimetres)	• identify and measure right angles using a right angle tester • know a right angle is 90°.
			Lesson 67 Name and list properties of simple 2D shapes (Telling the time to the nearest 5 minutes)	• name and describe 2D shapes • identify properties of 2D shapes including number of sides, straight and curved sides, number of angles (corners), right angles • use the term polygon to describe all straight-sided 2D shapes • use and understand the terms regular shapes and irregular shapes.

		of a 2D shape; begin to calculate using a ruler; know a right angle is a quarter turn; know 360º is a full turn; begin to understand angles and identify size of angles in relation to 90º	Lesson 68 Begin to understand and use the term perimeter to mean the length/distance around the edge (border) of a 2D shape (S: Multiplying and dividing by 10)	• begin to understand and use the term perimeter – meaning the length around the outside of a shape • count centimetres to calculate the perimeter of simple shapes (rectangles and squares).
			Lesson 69 Begin to understand and use the term perimeter to mean the length/distance around the edge (border) of a 2D shape and begin to calculate perimeter, using a ruler to measure (S: Name and describe 2D shapes)	• understand what perimeter is • measure the perimeter of simple polygons in centimetres using a ruler.
			Lesson 70 Recognise right angles and know they are 90°; Know a right angle is a quarter turn, know 360° is a full turn; Begin to understand angles and identify size of angles in relation to 90° and introduce 45° and 30° angles (S: Bonds to 100)	• identify a right angle and know this is 90° • understand that a full turn is 360° and that a quarter turn is 90° • estimate the size of angles in relation to right angles (i.e. more or less than a right angle).
15	Number and place value **(NPV)**; Mental addition and subtraction **(MAS)**	Place 3-digit numbers on empty 100 number lines; begin to place 3-digit numbers on 0-1000 landmarked and empty number lines; round 3-digit numbers to the nearest ten and to the nearest hundred; use counting up as a strategy to perform mental subtraction (Frog); subtract pounds and pence from five pounds; use counting up (Frog) as a strategy to perform mental subtraction of amounts of money; subtract pounds and pence from ten pounds	Lesson 71 Place 3-digit numbers on empty 0–100 number lines and begin to place 3-digit numbers on landmarked and empty 0–1000 number lines (S: Draw a shape and identify properties)	• place 3-digit numbers on an empty number line, between appropriate 100s • place 3-digit numbers on a landmarked 0–1000 line • begin to place 3-digit numbers on an empty 0–1000 number line.
			Lesson 72 Round 3-digit numbers to the nearest 10 and to the nearest 100; Place 3-digit numbers on empty 0–100 number lines and begin to place 3-digit numbers on empty 0–1000 number lines (S: 3D shapes)	• round 3-digit numbers to nearest 10, 100 • mark 3-digit numbers on empty 0–100 number lines • mark 3-digit numbers on empty 0–1000 number lines.
			Lesson 73 Use counting up as a strategy to perform mental subtraction (S: Adding to the next ten)	• solve 3-digit – 2-digit subtractions using counting up, involving crossing 100 • begin to decide where counting back is a more appropriate method.
			Lesson 74 Use counting up to mentally subtract pounds and pence from five pounds (S: Bonds to 100)	• count up in pence and pounds to calculate change from £5 • subtract amounts of money (multiples of ten pence) from £5 by counting up.

			Lesson 75 Use counting up as a strategy to mentally subtract pounds and pence from ten pounds (S: Dividing by 10)	• count up in pence and pounds to calculate change from £10 • subtract amounts of money (multiples of five pence) from £10.
Spring 2				
Week	**Strands**	**Weekly summary**		
16	Number and place value **(NPV)**; Written addition and subtraction **(WAS)**	Understand place-value in 3-digit numbers; separate 3-digit numbers into hundreds, tens, and ones; add two 3-digit numbers using vertical written addition (expanded); add 2- and 3- digit numbers using vertical written addition (expanded)	Lesson 76 Understand place-value in 3-digit numbers; Separate 3-digit numbers into hundreds, tens, and ones (S: Add single digit numbers)	• read and write 3-digit numbers, understanding what each digit represents.
			Lesson 77 To begin to add two 3-digit numbers using vertical written addition (expanded) (S: Adding multiples of ten)	• begin to add using expanded vertical addition • add two single-digit numbers, Add two 2-digit numbers, Add two 3-digit numbers • partition 3-digit numbers.
			Lesson 78 To begin to add two 3-digit numbers using vertical written addition (expanded) (S: Adding multiples of hundred)	• add two 3-digit numbers using expanded vertical addition where the tens or the ones may have answers greater than 10 or 100 (not both columns in same addition) • add two single-digit numbers, add two 2-digit numbers, add two 3-digit numbers • partition 3-digit numbers.
			Lesson 79 To begin to add two 3-digit numbers using vertical written addition (expanded) (S: Know doubles to double 20)	• add 2- and 3-digit numbers using expanded vertical addition where the tens or the ones may have answers greater than 10 or 100 • add several single-digit numbers, Add several 2-digit numbers, Add several 3-digit numbers • partition 3-digit numbers.
			Lesson 80 Use expanded written method to add 2- and 3-digit numbers (S: Counting on and back in ones and tens)	• add 2- and 3-digit numbers using expanded vertical addition where the tens or the ones may have answers greater than 10 or 100 • add several single-digit numbers, Add several 2-digit numbers, Add several 3-digit numbers • partition 3-digit numbers.

17	Mental addition and subtraction **(MAS)**; Written addition and subtraction **(WAS)**	Add two 2-digit numbers mentally; add 2-digit to 3-digit numbers mentally using place value and rounding; add two 3-digit numbers using expanded written method (answers under 1000); begin to move tens and hundreds moving towards formal written addition; add two 3-digit numbers using expanded column addition; investigate patterns in numbers when adding them; choose to solve addition using a mental method or expanded column addition (written method)	Lesson 81 Add two 2-digit numbers mentally; Add a 2-digit number to a 3-digit number mentally (S: Count in 5s and 50s from any number)	• add two 2-digit numbers mentally using partitioning, counting on, rounding • add a 2-digit and a 3-digit number mentally using partitioning, counting on, rounding • confidently choose appropriate mental strategy to add two 2-digit numbers.
			Lesson 82 Add 2- & 3-digit numbers mentally using place-value or rounding as a strategy (S: Counting on and back in ones)	• add using place-value • add numbers by rounding and correcting.
			Lesson 83 Add two 3-digit numbers using expanded written method (answers under 1000); Begin to move tens & hundreds moving towards formal written addition (S: Adding multiples of 100)	• add two 3-digit numbers using expanded column addition • partition 3-digit numbers into hundreds, tens and ones.
			Lesson 84 Add two 3-digit numbers using expanded column addition; Investigate patterns in numbers when adding them (S: Place-value additions)	• add two three-digit numbers using expanded written addition • investigate number patterns in adding 3-digit numbers • begin to make predictions • begin to use a systematic approach to test their predictions • know what a palindromic number is.
			Lesson 85 Choose to solve addition using a mental method or expanded column addition (written method) (S: 8 Times Table)	• begin to choose a mental or written method for solving addition • read and solve simple addition word problems.
18	Measurement **(MEA)**	Tell the time to the nearest minute on analogue and digital clocks (minutes past and minutes to); time events in minutes and seconds; find a time after a given interval (not crossing the hour); calculate time intervals; solve word problems involving time	Lesson 86 Tell the time to the nearest minute on analogue and digital clocks (minutes past) (S: Months of the year)	• tell the time to the nearest minute on analogue and digital clocks (minutes past).
			Lesson 87 Tell the time to the nearest minute on analogue and digital clocks (minutes to) (S: Months of the year)	• tell the time to the nearest minute on analogue and digital clocks (minutes to).
			Lesson 88 Time events in minutes and seconds (S: Know the digital equivalent for times shown on an analogue clock)	• time events in minutes and seconds • have sense of how long a minute is.
			Lesson 89 Find a time after a given interval (not crossing the hour) (S: Know the digital equivalent for times shown on an analogue clock)	• find the time after a given interval (not crossing the hour).
			Lesson 90 Calculate time intervals; Solve word problems	• calculate time intervals (not crossing

			involving time (S: Bonds to 100)	the hour).
19	Mental addition and subtraction **(MAS)**; Number and place value **(NPV)**	Order 3-digit numbers and find numbers between; solve subtractions of 3-digit – 3-digit numbers using counting up (Frog); use counting up and counting back as strategies to perform mental subtractions; choose to solve a given subtraction by counting up or counting back	Lesson 91 Order 3-digit numbers, find numbers between (S: Bonds to 100 (subtraction))	• order three 3-digit numbers • find numbers between 3-digit numbers.
			Lesson 91 Solve subtractions of 3-digit – 3-digit numbers using counting up (Frog) (S: Multiplying by ten)	• subtract 3-digit numbers by counting up from the smaller to the larger number. (Frog)
			Lesson 93 Solve subtractions of 3-digit – 3-digit numbers using counting up (Frog) (S: Dividing by ten)	• subtract 3-digit numbers in the 200s by counting up • add several numbers 1-digit and a 2-digit.
			Lesson 94 Using counting up (Frog) as a strategy to perform mental subtraction any 3-digit – 3-digit numbers (S: Adding to the next ten)	• subtract 3-digit numbers using counting up (Frog) • create 3-digit subtractions with a set answer of 33 or 44 using Frog to count up 33 or 44 from any 3-digit number • look for patterns in numbers by looking at the ones digits, the tens digits etc.
			Lesson 95 Using counting up as a strategy to perform mental subtraction; Using counting back as a strategy to perform subtraction; Choose to solve a given subtraction by counting up or counting back (S: Bonds to 20)	• subtract by counting back • subtract by counting up (Frog) • choose an appropriate method to subtract by counting up or back
20	Mental multiplication and division **(MMD)**; Number and place value **(NPV)**	Double and halve numbers up to 100 by partitioning; solve word problems involving doubling and halving; multiply numbers between 10 and 25 by 1-digit numbers using the grid method; divide multiples of 10 by 1-digit numbers using known tables facts; see the relation between multiplication and division	Lesson 96 Double numbers up to 100 by partitioning (S: Double 5 to 20 and corresponding halves)	• use partitioning to double any two-digit number • understand the relationship between doubling and halving.
			Lesson 97 Double and halve numbers up to 100 by partitioning; Solve word problems involving doubling and halving (S: Count in steps of 50)	• halve even two-digit numbers • decide where halving or doubling is needed to solve word problems.
			Lesson 98 Begin to multiply numbers between 10 and 25 by single-digit numbers using grid method (S: 30 times table)	• begin to use the grid method to multiply numbers from 10 to 25 by single-digit numbers.
			Lesson 99 Multiply numbers between 10 and 25 by single-digit numbers using grid (S: 40 times table)	• use the grid method to multiply numbers between 10 and 25 by single-digit numbers.
			Lesson 100 Dividing multiples of 10 by single digit numbers using known tables facts; eg 60 ÷ 3 or 80 ÷ 4 etc See the relation between multiplication and division; eg 20 x 3 = 60, ? x 3 = 60, 60	• solve problems involving 3-digit multiples of ten divided by single digit numbers using relevant tables facts

			$\div 3 = 20$ (S: 3 and 4 times table)	• use mathematical reasoning in solving problems.
Summer 1				
Week	**Strands**	**Weekly summary**		
21	Mental addition and subtraction **(MAS)**; Fractions, ratio and proportion **(FRP)**	Add 3-digit and 1-digit numbers mentally, using number facts; solve 3-digit number subtract 1-digit number subtractions mentally using number facts; add and subtract multiples of ten by counting on and back in tens and using number facts to cross 100s; compare and order fractions with the same denominator; begin to recognise equivalences of 1/2; add and subtract fractions with the same denominator	Lesson 101 Add 3-digit and 1-digit numbers mentally, using number facts (S: Subtract 1-digit numbers from 2-digit numbers)	• add 1-digit numbers to 3-digit numbers • use number facts to add.
			Lesson 102 Solve 3-digit number, subtract 1-digit number subtractions mentally using number facts (S: Divide multiples of ten by 2, 3, 4 & 5)	• subtract a single digit number from a 3-digit number • use number facts to subtract 1-digit numbers by counting back in chunks.
			Lesson 103 Add and subtract multiples of ten by counting on and back in tens and using number facts to cross 100s (S: Adding multiples of 100 to 3-digit numbers)	• add and subtract multiples of ten to/from 3-digit numbers • use number facts to solve mental additions and subtractions of mutliples of ten to & from 3-digit numbers.
			Lesson 104 Compare and order fractions with the same denominator; Begin to recognise equivalences of ½ (S: Subtract multiples of 100 from 3-digit numbers)	• read and write fractions using correct notation e.g. ½ ¼ etc. • compare and order fractions with the same denominator.
			Lesson 105 Add and subtract fractions with the same denominator [within one whole, not mixed numbers] (S: Fractions which equal 1)	• understand the concept of fractions as parts of numbers • add and subtract fractions with the same denominator • recognise equivalence of a half.
22	Written multiplication and division **(WMD)**; Mental multiplication and division **(MMD)**	Use function machines to multiply by 2, 3, 4, 5 and 8 and see the inverse; use scaling to multiply heights and weights by 2, 4, 8, 5 and 10; use known facts to multiply multiples of 10 by 2, 3, 4 and 5; multiply numbers between 10 and 30 by 2, 3, 4 and 5 using the grid method; multiply 2-digit numbers by 3, 4, 5 and 8 using the grid method	Lesson 106 Use function machines to multiply by 2, 3, 4, 5 and 8 and see the inverse (S: 2, 3, 4, 5 and 8 times tables)	• multiply numbers by 2, 3, 4, 5 and 8, and understand the inverse.
			Lesson 107 Use scaling to multiply heights and weights by 2, 4, 8, 5 and 10 (S: Multiply by 4 by doubling twice; Find a quarter by halving twice)	• use scaling to multiply heights and weights by 2, 4, 8, 5 and 10.
			Lesson 108 Use known facts and multiply by 10 to multiply multiples of 10 by 2, 3, 4 and 5 (S: Multiply and divide by 10)	• use times tables and place value to multiply multiples of 10 by 2, 3, 4 and 5.
			Lesson 109 Multiplying numbers between 10 and 30 by 2, 3, 4 and 5 using the grid method (S: Count in steps of 30, 40 and 50)	• multiply numbers between 10 and 30 by 3, 4 and 5 using the grid method.
			Lesson 110 Use the grid method to multiply two-digit numbers by 3, 4, 5 and 8 (S: 8 times table)	• multiply two-digit numbers by single-digit numbers using known × facts, place value and commutativity.
23	Mental multiplication	Divide without	Lesson 111 Division without remainders, just beyond the 12th	• begin to use chunking to divide

			multiple (S: Division facts for 3, 4 and 5 times tables)	numbers just beyond the times tables.
	and division **(MMD)**; Written multiplication and division **(WMD)**	remainders, just beyond the 12th multiple; division using chunking, with remainders; use the grid method to multiply 2-digit numbers by 3, 4 ,5 and 8; begin to estimate products	Lesson 112 Division without remainders, just beyond the 12th multiple (S: Division facts for the 8 times table)	• use chunking to divide numbers just beyond the times tables, no remainders.
			Lesson 113 Division using chunking, with remainders (S: Telling the time: matching digital to analogue times)	• divide numbers above the 12th multiple of the divisor using chunking • find remainders when dividing.
			Lesson 114 Use the grid method to multiply two-digit numbers by 3, 4, 5 and 8 (S: Multiply multiples of 10 by single-digit numbers)	• multiply numbers up to two-digit numbers by 3, 4, 5 or 8 and use them to solve word problems.
			Lesson 115 Use the grid method to multiply two-digit numbers by 3, 4, 5 and 8; Begin to estimate products (S: Divide multiples of ten by single digit numbers, eg 90 ÷ 3)	• use the grid method to multiply two-digit numbers by 3, 4 ,5 and 8 • begin to use rounding to estimate.
24	Statistics **(STA)**; Measurement **(MEA)**	Draw and interpret bar graphs and pictograms where one square/symbol represents two units; draw tally charts; compare and measure weights in multiples of 100g; know how many grams are in a kilogram; estimate and weigh objects to the nearest 100g; draw and interpret bar graphs where one square represents one hundred units	Lesson 116 Draw and interpret pictograms where one symbol represents two units (S: Ordering months)	• draw a pictogram where one symbol represents two units.
			Lesson 117 Draw and interpret bar graphs and pictograms where one square/symbol represents two units; Draw tally charts (S: Reading scales)	• draw a pictogram where one symbol represents two units • draw a bar chart where one step represents two units • understand that we can also have scales of 5:1 or 10:1.
			Lesson 118 Compare and measure weights in multiples of 100g; Know how many grams are in a kilogram (S: Place 3-digit numbers between multiples of 100)	• have a feel for the weight of 100g • measure weights to the nearest 50g • know the relationship between grams and kilograms.
			Lesson 119 Estimate and weigh objects to the nearest 100g (S: Find a time a given number of minutes later)	• begin to estimate weights in multiples of 100g • weight items to the nearest 50g.
			Lesson 120 Draw and interpret bar graphs where one square represents 100 units (S: Make amounts of money)	• draw and interpret tables and bar charts with an interval of 100g.
25	Mental addition and subtraction **(MAS)**; Written addition and subtraction **(WAS)**	Add 3-digit and 2-digit numbers using mental strategies; add two 3-digit numbers using mental strategies or by using column written addition	Lesson 121 Add 3-digit and 2-digit numbers using mental strategies (S: Time)	• add a 2-digit and a 3-digit number using a mental strategy.
			Lesson 122 Add two 3-digit numbers using mental strategies (S: Compare 3-digit numbers)	• add 3-digit numbers using mental strategies, e.g. adding hundreds, tens and ones, rounding, using place-value, partitioning and adding the ones, then the tens, then the hundreds.
			Lesson 123 Add two 3-digit numbers using column written	• add two 3-digit numbers using

			addition (S: Rounding using a number line)	column addition • use reasoning and systematic trial and error to investigate creating additions with a given total.
			Lesson 124 Add 3-digit numbers using column addition (S: Adding 2-3 multiples of ten)	• add 3-digit numbers using column addition (making extra tens, hundreds or both).
			Lesson 125 Choose to solve additions of 3-digit numbers using mental or column addition (S: Convert units of time: weeks to days)	• choose an appropriate method to solve addition of 3-digit numbers • add 3-digit numbers using mental strategies • add 3-digit numbers using column addition.

Summer 2

Week	Strands	Weekly summary		
26	Written addition and subtraction **(WAS)**; Mental addition and subtraction **(MAS)**	Use column addition to add three 2 and 3-digit numbers together and four 2 and 3-digit numbers together; subtract 3-digit numbers using counting up (Frog) with answers under 50 and then under 70; solve word problems choosing an appropriate method	Lesson 126 Add three 2 and 3-digit numbers using column addition (S: Add several 1-digit numbers)	• add 2-digit numbers in towers of 3 or 4 numbers accurately using column addition. • add 3-digit numbers in towers of 3 accurately using column addition.
			Lesson 127 Add four 2 and 3-digit numbers using the column addition (S: Add several multiples of ten)	• add 2-digit numbers in towers of 3 or 4 accurately using column addition • add 3-digit numbers in towers of 3 accurately using column addition.
			Lesson 128 Subtract 3-digit numbers using counting up (Frog) [subtraction answers under 50] (S: Add to the next multiple of ten then the next multiple of 100)	• subtract 3-digit numbers using counting up (frog) • add to the next ten and the next hundred.
			Lesson 129 Subtract 3-digit numbers using counting up (Frog) [subtraction answers under 70] (S: Add two 2-digit numbers)	• subtract 3-digit numbers using counting up (frog) • add to the next ten and the next hundred • add two 2-digit numbers using mental strategies.
			Lesson 130 Solve word problems choosing an appropriate method (S: Subtract by counting back using number facts)	• solve word problems using addition or subtraction • use mental strategies to add numbers • choose appropriate strategy to solve subtraction.

27	Written addition and subtraction **(WAS)**; Mental addition and subtraction **(MAS)**; Measurement **(MEA)**	Add 3-digit numbers using column addition; solve problems involving measures; solve subtractions of 3-digit numbers using counting up on a line (Frog); choose an appropriate strategy to solve addition or subtraction (either mentally, using column addition or counting up on a number line)	Lesson 131 Add 3-digit numbers using column addition; Solve problems involving measures (S: Convert measures from kilometres to metres, kilograms to grams and litres to millilitres and vice-versa)	• add 3-digit numbers using column addition • understand and use measures context when solving additions
			Lesson 132 Add 3-digit numbers using column addition; Solve problems involving measures (S: Add several 1-digit numbers)	• add 3-digit numbers using column addition • understand and use measures context when solving additions.
			Lesson 133 Solve subtractions of 3-digit numbers using counting up on a line (Frog) (S: Complements to the next hundred)	• solve subtractions of 3-digit numbers using counting up (Frog) • know bonds to ten and multiple of ten bonds to a hundred to solve the first two hops of a counting up (Frog) subtraction • use mathematical reasoning to explain patterns • use systematic thinking to generate all possible types of number.
			Lesson 134 Solve subtractions of 3-digit numbers using counting up on a line (Frog) (S: Place 3-digit numbers on a line)	• solve subtractions of 3-digit numbers using counting up (Frog) • solve a problem in a measures context answering in a sentence using the appropriate unit.
			Lesson 135 Choose appropriate strategy to solve addition or subtraction (choose to solve mentally or using column addition or counting up on a number line to subtract) (S: Frog Bingo)	• choose the appropriate method to add (mental or column addition) • choose the appropriate method to subtract (mental or counting up using Frog).
28	Measurement **(MEA)**; Geometry: properties of shapes **(GPS)**	Identify, name and draw: angles in 2D shapes and horizontal, vertical, parallel and perpendicular lines; identify horizontal, vertical, parallel, perpendicular and diagonal lines in 2D shapes; identify symmetry in 2D shapes; measure the perimeter of	Lesson 136 Identify, name and draw: horizontal, vertical, parallel and perpendicular lines (S: Count in fractions (halves, quarters, thirds))	• recognise and use the terms: horizontal, vertical, parallel, perpendicular and diagonal • draw horizontal, vertical, parallel, perpendicular and diagonal lines.
			Lesson 137 Indentify angles in 2D shapes; Identify horizontal, vertical, parallel, perpendicular and diagonal lines in 2D shapes; Identify symmetry in 2D shapes (S: Counting back in ones and tens)	• recognise angles in shapes and identify right angles (90º) • recognise parallel and perpendicular lines in shapes • begin to identify lines of symmetry in 2D shapes.

			Lesson 138 Measure the perimeter of 2D shapes, including the use of counting and of measuring using a ruler (S: Tell the time on analogue and digital clocks to the 5mins)	• understand and use the term perimeter • measure simple rectilinear perimeters by counting the squares • begin to measure perimeter using a ruler to measure in centimetres and adding the lengths of the sides.
		2D shapes, including the use of counting and of measuring using a ruler; tell the time on analogue and digital clocks to the nearest minute; begin to tell time 5/10/20 minutes later; begin to recognise am and pm; tell the time on analogue and digital clocks to the nearest 5 minutes, begin to tell the time to the minute; begin to recognise 24 hour clock times	Lesson 139 Tell the time on analogue and digital clocks to the nearest minute; begin to tell time 5/10/20 minutes later; Begin to recognise am and pm (S: Time Durations)	• tell the time to the nearest minute • begin to use am and pm correctly and understand these terms.
			Lesson 140 Tell the time on analogue and digital clocks to the nearest 5 minutes, Begin to tell the time to the minute; Begin to tell time 5/10/20 minutes later; Begin to recognise 24 hour clock times (S: Know the relationship between units of time)	• tell the time to the nearest five minutes; Begin to tell the time to the nearest minute • begin to use am and pm correctly and understand these terms • realise that we can use a 24 hour clock.
29	Written multiplication and division **(WMD)**; Fractions, ratio and proportion **(FRP)**; Decimals, percentages and their equivalence to fractions **(DPE)**	Use the grid method to multiply 2-digit numbers by 3, 4 ,5, 6 and 8; estimate products; divide using chunking, with and without remainders; solve word problems, first deciding whether they need multiplication or division to solve them; recognise tenths and equivalent fractions; find one tenth of multiples of ten, find several tenths of multiples of ten, find one tenth of 1-digit numbers	Lesson 141 Use the grid method to multiply two-digit numbers by 3, 4, 5, 6 and 8; Begin to estimate products (S: 3, 4, 5 and 8 times tables)	• multiply two-digit numbers by single-digit numbers using known × facts and commutativity • begin to estimate products.
			Lesson 142 Division using chunking, with and without remainders (S: Use multiplication facts and place value to divide multiples of 10 by single-digit numbers (no remainders))	• use chunking' to solve divisions by 3, 4, 5 and 8 with and without remainders (answers less than 20).
			Lesson 143 Solve word problems, first deciding whether they need multiplication or division to solve them (S: Division facts for 8 times table)	• solve word problems involving 2-digit by single-digit multiplication or division • make sense of a word problem and write the relevant calculations.
			Lesson 144 Recognise tenths and equivalent fractions (S: Compare fractions with the same denominator)	• recognise tenths and equivalent fractions.
			Lesson 145 Find one tenth of multiples of ten; Find several tenths of multiples of ten; Begin to see that we can find one tenth of single-digit numbers (eg 1/10 of 3 is 3/10) (S: Divide by 10)	• find one tenth of multiples of ten (e.g. 1/10 of 30 and 1/10 of 240) • begin to find see that we can find one tenth of single-digit numbers (e.g. 1/10 of 4 is 4/10).
30	Written addition and subtraction **(WAS)**;	Revise column written addition for adding three	Lesson 146 Revise column written addition for adding three 3-digit numbers; Revise mental strategies for addition (S: Mental	• use a written column method of addition to add three-digit numbers

Mental addition and subtraction **(MAS)**; Written multiplication and division **(WMD)**	3-digit numbers; revise mental strategies for addition; revise written subtraction (Frog); find change using counting up; check subtractions using addition; multiply numbers between 10 and 25 by 1-digit numbers using the grid method; solve division problems just above the tables facts	addition strategies)	• use mental strategies to add numbers.
		Lesson 147 Written subtraction (Frog) (S: Complements to 10 and 100)	• subtract three-digit numbers • say which subtractions need to be written down and which can be done mentally • begin to explain mathematical patterns.
		Lesson 148 Find change using counting up subtraction; Check subtraction using addition (S: Bonds to 100)	• find change for amounts to £10 and £20.
		Lesson 149 Multiply numbers between 10 and 25 by single-digit numbers using grid method (S: Times tables [2x, 3x, 4x, 5x, 8x])	• use the grid method to multiply numbers between 10 and 40 by single-digit numbers.
		Lesson 150 Solving division problems just above the tables facts (S: Divide by 10 with a remainder)	• divide numbers above the tables by subtracting ten times the divisor.