

## Abacus Year 3 Draft Teaching Overview



Autumn 1				
Week	Strands	Weekly summary		
1	Mental addition and subtraction ( <b>MAS</b> )	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)	<ul style="list-style-type: none"> <li>recognise and use bonds to 10</li> <li>recognise and use multiple of 10 bonds to 100.</li> </ul>
			Lesson 2 Learn to work out any multiple of 5 bond to 100 (S: Bonds to 10)	<ul style="list-style-type: none"> <li>recognise and use bonds to 10 to help derive multiple of 5 bonds to 100</li> <li>understand that when you work out a 2-digit number ending in 5 bond to 100 the 10s numbers will need to total 90.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>recognise and use number bonds and doubles to solve additions of three or four small numbers</li> <li>recognise and use bonds of numbers to 10.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>recognise and use bonds to solve additions and subtractions of 1-digit numbers to and from 2-digit numbers.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>recognise and use bonds to add and subtract a 1-digit number to and from a 2-digit number</li> <li>begin to spot number patterns and explain these using their knowledge of number bonds.</li> </ul>
2	Number and place value ( <b>NPV</b> ); Mental addition and subtraction ( <b>MAS</b> )	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)	<ul style="list-style-type: none"> <li>read and write 3-digit numbers</li> <li>correctly identify the number of 100s, 10s and 1s in a 3-digit number</li> <li>begin to 'zap' digits by subtracting the 10s or the 100s or the 1s.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>recognise 100s, 10s and 1s in 3-digit numbers and use them to compare and order numbers</li> <li>use greater than &gt; and less than &lt; signs correctly in a number sentence.</li> </ul>

			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)	<ul style="list-style-type: none"> <li>add and subtract multiples of 10 by counting on and back in 10s or using number facts</li> <li>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.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>recognise and use bonds to solve additions and subtractions of 2-digit numbers</li> <li>add and subtract 2-digit numbers using number facts and counting on and back.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>add and subtract 2-digit numbers to and from 2-digit numbers</li> <li>work systematically</li> <li>show logical reasoning skills, deduction, discuss and share work.</li> </ul>
3	Mental multiplication and division ( <b>MMD</b> )	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)	<ul style="list-style-type: none"> <li>recall and use multiplication facts for the 5 and 10 times-tables immediately</li> <li>derive division facts really quickly.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>begin to know multiplication facts and derive division facts for the 4 times-table</li> <li>relate the 4 times-table to the 2 times-table.</li> </ul>
			Lesson 13 Know multiplication and division facts for the 3 times-table (S: Count in 3s)	<ul style="list-style-type: none"> <li>recall multiplication facts and derive division facts for the 3 times-table</li> <li>begin to relate the 6 times-table to the 3 times-table.</li> </ul>
			Lesson 14 Know doubles to double 20 and derive corresponding halves (S: Doubles to double 12)	<ul style="list-style-type: none"> <li>recall doubles of numbers 1 to 20 and derive the related halves</li> <li>apply reasoning skills when choosing numbers that will give the longest chains.</li> </ul>
			Lesson 15 Halve even numbers up to 40 and halve odd numbers up to 20 (S: Doubles 10 to 20)	<ul style="list-style-type: none"> <li>halve any even number up to 40 using partitioning</li> <li>halve any odd number up to 20.</li> </ul>
4	Measurement ( <b>MEA</b> );	Know and understand the	Lesson 16 Read a calendar; Know the relationship between	<ul style="list-style-type: none"> <li>read simple calendars and</li> </ul>

	Geometry: properties of shapes <b>(GPS)</b>	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)	<ul style="list-style-type: none"><li>understand how they work</li><li>find a time interval in months, and in weeks and days.</li></ul>
			Lesson 17 Revise telling the time to the quarter hour on analogue and digital clocks (S: Pairs to 60)	<ul style="list-style-type: none"><li>read the time to the quarter hour on analogue and digital clocks</li><li>write equivalent digital times when given analogue times, and vice versa.</li></ul>
			Lesson 18 Tell the time to 5 minutes on both analogue and digital clocks (S: Count in 5s around the clock)	<ul style="list-style-type: none"><li>read the time to the nearest five minutes (past and to the hour) on digital and analogue clocks.</li></ul>
			Lesson 19 Describe and sort 3D shapes (S: Tell the time using the analogue clock)	<ul style="list-style-type: none"><li>classify and name 3D shapes</li><li>describe the properties of 3D shapes.</li></ul>
			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)	<ul style="list-style-type: none"><li>name and describe 3D shapes</li><li>understand and use the terms: faces, edges and vertices.</li></ul>
5	Number and place value <b>(NPV)</b> ; Mental addition and subtraction <b>(MAS)</b>	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)	<ul style="list-style-type: none"><li>read and locate 2-digit numbers on a landmarked line</li><li>read and locate 3-digit numbers on a landmarked line.</li></ul>
			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)	<ul style="list-style-type: none"><li>read and write 3-digit numbers</li><li>say the 100s and 10s number any 3-digit number lies between</li><li>use 'greater than' and 'less than' signs correctly in a number sentence.</li></ul>
			Lesson 23 Rounding 3-digit numbers to nearest 10 (S: Counting in 3s)	<ul style="list-style-type: none"><li>round 3-digit numbers to nearest 10</li><li>read and locate 3-digit numbers on a landmarked line.</li></ul>
			Lesson 24 Subtract by finding a difference (counting up from smaller to larger number) gaps under 12 (S: Add to the next 10)	<ul style="list-style-type: none"><li>subtract two 2-digit numbers (gaps under 12) by counting up</li><li>hop to next 10 then on.</li></ul>
			Lesson 25 Identifying numbers with a difference of 10; Make predications and generalisations (S: Multiple of 5 bonds to 100)	<ul style="list-style-type: none"><li>use frog jumping to perform counting up subtractions</li><li>spot patterns, explain and predict ideas showing work as support, show logical reasoning skills and discuss and share work</li><li>think about the number system beginning to make generalisations.</li></ul>
Autumn 2				

Week	Strands	Weekly summary		
6	Mental multiplication and division ( <b>MMD</b> ); Fractions, ratio and proportion ( <b>FRP</b> )	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)	<ul style="list-style-type: none"> <li>double 2-digit numbers up to 50.</li> </ul>
			Lesson 27 Halve even numbers to 100 using partitioning (S: Halve odd numbers to 19)	<ul style="list-style-type: none"> <li>halve even numbers to 100, using partitioning</li> <li>understand the relationship between doubling and halving.</li> </ul>
			Lesson 28 Understand fractions as parts of wholes (S: Place numbers on a 0–100 line)	<ul style="list-style-type: none"> <li>understand the concept of a fraction, realising that each part must be equal</li> <li>write unit fractions</li> <li>realise that a unit fraction with a larger denominator is smaller than a unit fraction with a smaller denominator.</li> </ul>
			Lesson 29 Find fractions of amounts using fraction strips (S: Tell the time to the quarter hour and also to 5 minutes)	<ul style="list-style-type: none"> <li>use strips to find <math>\frac{1}{2}</math>, <math>\frac{1}{3}</math> and <math>\frac{1}{4}</math> of multiples of 2, 3 and 4</li> <li>find several quarters and thirds of amounts.</li> </ul>
			Lesson 30 Investigate finding which numbers can be split into thirds and which can be split into quarters (S: Mixed numbers)	<ul style="list-style-type: none"> <li>look for patterns and relationships, and make predictions</li> <li>begin to see the relationship between finding fractions of amounts and division.</li> </ul>
7	Mental addition and subtraction ( <b>MAS</b> ); Measurement ( <b>MEA</b> )	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)	<ul style="list-style-type: none"> <li>read and write amounts of money using correct £.p. notation, (no zeros i.e. not £3.05)</li> <li>make amounts of money using minimum coins</li> <li>name and know value of all coins (1p–£2).</li> </ul>
			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)	<ul style="list-style-type: none"> <li>recognise £s/10ps/1ps in a given amount of money</li> <li>convert pounds to pence, i.e. know £2.83 = 283p</li> <li>use money notation</li> <li>add amounts of money using knowledge of place value</li> <li>subtract amounts of money using knowledge of place value.</li> </ul>

			Lesson 33 Derive number that adds to total 100 from any 1- or 2-digit number (S: Bonds to 10 and 20)	<ul style="list-style-type: none"> <li>derive bonds to 100 from any number under 100</li> <li>use knowledge of bonds to add to the next multiple of 10 and then on to 100.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>add and subtract 2-digit numbers using partitioning and recombining</li> <li>partition 2-digit numbers into 1s and 10s</li> <li>recognise and use bonds to solve additions and subtractions of 2-digit numbers.</li> </ul>
			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))	<ul style="list-style-type: none"> <li>add two 2-digit numbers using partitioning</li> <li>add three 2-digit numbers using partitioning.</li> </ul>
8	Measurement <b>(MEA)</b>	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)	<ul style="list-style-type: none"> <li>use a ruler to measure to the nearest cm</li> <li>recognise that a ruler, metre stick and tape measure are all used to measure length</li> <li>write measurements using the convention cm.</li> </ul>
			Lesson 37 Estimate and measure length to nearest centimetre (S: Know relationship between centimetres and millimetres)	<ul style="list-style-type: none"> <li>use a ruler to measure to the nearest cm (or <math>\frac{1}{2}</math> cm or mm)</li> <li>estimate lengths to nearest cm</li> <li>understand relationship between mm, cm and m.</li> </ul>
			Lesson 38 Draw a line to a given length in centimetres (S: Counting in 3s)	<ul style="list-style-type: none"> <li>draw a line to a given length in centimetres</li> <li>draw a line to a given length to half a centimetre</li> <li>draw a line to given length in millimetres.</li> </ul>
			Lesson 39 Know 1 litre = 1000 ml and measure capacity in units of 100 ml (S: 4 times-table)	<ul style="list-style-type: none"> <li>understand and know 1000 ml = 1 l</li> <li>read capacity to 100 ml</li> <li>read capacity to 50 ml.</li> </ul>
			Lesson 40 Estimate and measure capacity in millilitres to the nearest 100 ml (S: Revise relationship between millilitres (ml) and litres (l))	<ul style="list-style-type: none"> <li>estimate and measure capacity to nearest 100 ml</li> <li>estimate and measure capacity to</li> </ul>

				nearest 50#ml.
9	Number and place value ( <b>NPV</b> ); Mental addition and subtraction ( <b>MAS</b> )	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)	<ul style="list-style-type: none"> <li>mark and identify numbers on an empty 0–100 line</li> <li>mark and identify numbers on an empty line marked with two consecutive multiples of 100.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>place 3-digit numbers between multiples of 100 on a line with reasonable accuracy</li> <li>round 3-digit numbers to the nearest 100, placing them on a line to help.</li> </ul>
			Lesson 43 Using counting up as a strategy to perform mental subtractions with answers between 10 and 20 (S: Adding to the next 10)	<ul style="list-style-type: none"> <li>use counting up to subtract a pair of 2-digit numbers where the answer is between 10 and 20</li> <li>spot and describe a pattern.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>use counting up to subtract a pair of 2-digit numbers where the answer is between 20 and 30</li> <li>use number facts and place value.</li> </ul>
			Lesson 45 Using counting up as a strategy to subtract numbers either side of 100 (S: Bonds to 100)	<ul style="list-style-type: none"> <li>subtract pair of numbers either side of 100 by counting up</li> <li>use number facts and place value to help.</li> </ul>
10	Mental addition and subtraction ( <b>MAS</b> ); Mental multiplication and division ( <b>MMD</b> )	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)	<ul style="list-style-type: none"> <li>use multiplication facts for the 2, 3, 4, 5 and 10 times-tables and can derive the corresponding division facts</li> <li>use commutativity to derive multiplication facts using known facts</li> <li>understand the relationship between multiplication and division.</li> </ul>
			Lesson 47 Find remainders after division (S: 3 and 4 times-tables)	<ul style="list-style-type: none"> <li>understand that a remainder is the amount left over after a division</li> <li>begin to understand the patterns of remainders</li> <li>begin to relate remainders to multiples of a given number.</li> </ul>
			Lesson 48 Perform division with remainders (within known times-tables) (S: Place value in 3-digit numbers)	<ul style="list-style-type: none"> <li>divide 2-digit numbers by 2, 3, 4, 5 and 10, finding a remainder</li> <li>begin to understand the patterns of remainders</li> </ul>



				<ul style="list-style-type: none"> <li>begin to relate remainders to multiples of a given number.</li> </ul>
			Lesson 49 Choose a mental strategy to solve additions and subtractions (S: Add two or three small numbers using mental strategies)	<ul style="list-style-type: none"> <li>be secure with at least one mental strategy for each of addition and subtraction</li> <li>choose a mental addition or subtraction strategy according to the numbers involved or personal preference.</li> </ul>
			Lesson 50 Solve word problems, deciding whether addition or subtraction is needed (S: Add and subtract multiples of 10)	<ul style="list-style-type: none"> <li>identify the calculation (addition or subtraction) needed to solve a word problem.</li> </ul>
<b>Spring 1</b>				
<b>Week</b>	<b>Strands</b>	<b>Weekly summary</b>		
11	Number and place value ( <b>NPV</b> )	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)	<ul style="list-style-type: none"> <li>read and locate 3-digit numbers on a landmarked line</li> <li>say what each digit in a 3-digit number represents.</li> </ul>
			Lesson 52 Order numbers, find a number in between and compare number sentences (S: Balancing sums)	<ul style="list-style-type: none"> <li>compare pairs of 3-digit numbers and find a number in between</li> <li>use the &gt; and &lt; sign when comparing numbers and place-value additions.</li> </ul>
			Lesson 53 Place-value additions and subtractions (S: Compare pairs of 3-digit numbers and write a number in between)	<ul style="list-style-type: none"> <li>use place value and number facts to add and subtract multiples of 10 and 100 (not crossing 100s or 1000).</li> </ul>
			Lesson 54 Multiply and divide by 10 (whole-number answers) (S: Selecting the correct coins)	<ul style="list-style-type: none"> <li>multiply and divide whole numbers by 10 (whole-number answers) and describe what happens to each digit.</li> </ul>
			Lesson 55 Count in steps of 10, 50 and 100 (S: Repeatedly add a single-digit number)	<ul style="list-style-type: none"> <li>count in steps of 10, 50 and 100 from 0, then other numbers</li> <li>solve mathematical problems and spot patterns.</li> </ul>
12	Mental addition and subtraction ( <b>MAS</b> ); Mental multiplication and division ( <b>MMD</b> )	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)	<ul style="list-style-type: none"> <li>add any pair of 2-digit numbers using partitioning (crossing 10s, 100 or both)</li> <li>recognise and use bonds to solve additions of 2-digit numbers.</li> </ul>
			Lesson 57 Add pairs of 3-digit numbers using partitioning (crossing 10s or 100s but not 1000) (S: Draw a line of given	<ul style="list-style-type: none"> <li>use partitioning to add pairs of 3-digit numbers.</li> </ul>

		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)	<ul style="list-style-type: none"> <li>recognise multiples of 2, 3, 4, 5 and 10</li> <li>sort numbers according to whether they are multiples of a given number or not</li> <li>understand that some numbers are multiples of several numbers.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>begin to use the 4 times-table to work out the 8 times-table.</li> </ul>
			Lesson 60 Multiply and divide by 4 by doubling or halving twice (S: Count in steps of $\frac{1}{2}$ , $\frac{1}{3}$ and $\frac{1}{4}$ )	<ul style="list-style-type: none"> <li>multiply 2-digit numbers by 4 by doubling twice</li> <li>divide 2-digit numbers by 4 by halving twice (whole number answers).</li> </ul>
13	Fractions, ratio and proportion <b>(FRP)</b>	Identify $\frac{1}{2}$ s, $\frac{1}{3}$ s, $\frac{1}{4}$ s, $\frac{1}{6}$ s, and $\frac{1}{8}$ s; 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)	<ul style="list-style-type: none"> <li>identify <math>\frac{1}{2}</math>s, <math>\frac{1}{3}</math>s, <math>\frac{1}{4}</math>s, <math>\frac{1}{6}</math>s and <math>\frac{1}{8}</math>s</li> <li>say what is needed to make one whole.</li> </ul>
			Lesson 62 Find equivalent fractions (S: Find a difference between pairs of 2-digit numbers)	<ul style="list-style-type: none"> <li>identify equivalent fractions with visual support.</li> </ul>
			Lesson 63 Place fractions on a 0 to 1 line (S: Add pairs of 2-digit numbers)	<ul style="list-style-type: none"> <li>mark and identify simple fractions on 0 to 1 lines.</li> </ul>
			Lesson 64 Find fractions of amounts(S: Multiply by 4 by doubling twice)	<ul style="list-style-type: none"> <li>find fractions of amounts, using fraction strips to help.</li> </ul>
			Lesson 65 Find fractions of amounts (S: 8 times table)	<ul style="list-style-type: none"> <li>find fractions of amounts using arrays.</li> </ul>
14	Geometry: properties of shapes <b>(GPS)</b> ; Geometry: position and direction <b>(GPD)</b> ; Measurement <b>(MEA)</b>	Recognise right angles and know they are 90°; understand angles are measured in degrees; recognise ° 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)	<ul style="list-style-type: none"> <li>identify and measure right angles using a right angle tester</li> <li>know a right angle is 90°.</li> </ul>
			Lesson 67 Name and list properties of simple 2D shapes (Telling the time to the nearest 5 minutes)	<ul style="list-style-type: none"> <li>name and describe 2D shapes</li> <li>identify properties of 2D shapes including number of sides, straight and curved sides, number of angles (corners), right angles</li> <li>use the term polygon to describe all straight-sided 2D shapes</li> <li>use and understand the terms regular shapes and irregular shapes.</li> </ul>



		of a 2D shape; begin to calculate using a ruler; know a right angle is a quarter turn; know $360^\circ$ is a full turn; begin to understand angles and identify size of angles in relation to $90^\circ$	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)	<ul style="list-style-type: none"> <li>begin to understand and use the term perimeter – meaning the length around the outside of a shape</li> <li>count centimetres to calculate the perimeter of simple shapes (rectangles and squares).</li> </ul>
			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)	<ul style="list-style-type: none"> <li>understand what perimeter is</li> <li>measure the perimeter of simple polygons in centimetres using a ruler.</li> </ul>
			Lesson 70 Recognise right angles and know they are $90^\circ$ ; Know a right angle is a quarter turn, know $360^\circ$ is a full turn; Begin to understand angles and identify size of angles in relation to $90^\circ$ and introduce $45^\circ$ and $30^\circ$ angles (S: Bonds to 100)	<ul style="list-style-type: none"> <li>identify a right angle and know this is <math>90^\circ</math></li> <li>understand that a full turn is <math>360^\circ</math> and that a quarter turn is <math>90^\circ</math></li> <li>estimate the size of angles in relation to right angles (i.e. more or less than a right angle).</li> </ul>
15	Number and place value ( <b>NPV</b> ); Mental addition and subtraction ( <b>MAS</b> )	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)	<ul style="list-style-type: none"> <li>place 3-digit numbers on an empty number line, between appropriate 100s</li> <li>place 3-digit numbers on a landmarked 0–1000 line</li> <li>begin to place 3-digit numbers on an empty 0–1000 number line.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>round 3-digit numbers to nearest 10, 100</li> <li>mark 3-digit numbers on empty 0–100 number lines</li> <li>mark 3-digit numbers on empty 0–1000 number lines.</li> </ul>
			Lesson 73 Use counting up as a strategy to perform mental subtraction (S: Adding to the next ten)	<ul style="list-style-type: none"> <li>solve 3-digit – 2-digit subtractions using counting up, involving crossing 100</li> <li>begin to decide where counting back is a more appropriate method.</li> </ul>
			Lesson 74 Use counting up to mentally subtract pounds and pence from five pounds (S: Bonds to 100)	<ul style="list-style-type: none"> <li>count up in pence and pounds to calculate change from £5</li> <li>subtract amounts of money (multiples of ten pence) from £5 by counting up.</li> </ul>

			Lesson 75 Use counting up as a strategy to mentally subtract pounds and pence from ten pounds (S: Dividing by 10)	<ul style="list-style-type: none"> <li>count up in pence and pounds to calculate change from £10</li> <li>subtract amounts of money (multiples of five pence) from £10.</li> </ul>
<b>Spring 2</b>				
<b>Week</b>	<b>Strands</b>	<b>Weekly summary</b>		
16	Number and place value ( <b>NPV</b> ); Written addition and subtraction ( <b>WAS</b> )	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)	<ul style="list-style-type: none"> <li>read and write 3-digit numbers, understanding what each digit represents.</li> </ul>
			Lesson 77 To begin to add two 3-digit numbers using vertical written addition (expanded) (S: Adding multiples of ten)	<ul style="list-style-type: none"> <li>begin to add using expanded vertical addition</li> <li>add two single-digit numbers, Add two 2-digit numbers, Add two 3-digit numbers</li> <li>partition 3-digit numbers.</li> </ul>
			Lesson 78 To begin to add two 3-digit numbers using vertical written addition (expanded) (S: Adding multiples of hundred)	<ul style="list-style-type: none"> <li>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)</li> <li>add two single-digit numbers, add two 2-digit numbers, add two 3-digit numbers</li> <li>partition 3-digit numbers.</li> </ul>
			Lesson 79 To begin to add two 3-digit numbers using vertical written addition (expanded) (S: Know doubles to double 20)	<ul style="list-style-type: none"> <li>add 2- and 3-digit numbers using expanded vertical addition where the tens or the ones may have answers greater than 10 or 100</li> <li>add several single-digit numbers, Add several 2-digit numbers, Add several 3-digit numbers</li> <li>partition 3-digit numbers.</li> </ul>
			Lesson 80 Use expanded written method to add 2- and 3-digit numbers (S: Counting on and back in ones and tens)	<ul style="list-style-type: none"> <li>add 2- and 3-digit numbers using expanded vertical addition where the tens or the ones may have answers greater than 10 or 100</li> <li>add several single-digit numbers, Add several 2-digit numbers, Add several 3-digit numbers</li> <li>partition 3-digit numbers.</li> </ul>

17	Mental addition and subtraction <b>(MAS)</b> ; Written addition and subtraction <b>(WAS)</b>	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)	<ul style="list-style-type: none"> <li>add two 2-digit numbers mentally using partitioning, counting on, rounding</li> <li>add a 2-digit and a 3-digit number mentally using partitioning, counting on, rounding</li> <li>confidently choose appropriate mental strategy to add two 2-digit numbers.</li> </ul>
			Lesson 82 Add 2- & 3-digit numbers mentally using place-value or rounding as a strategy (S: Counting on and back in ones)	<ul style="list-style-type: none"> <li>add using place-value</li> <li>add numbers by rounding and correcting.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>add two 3-digit numbers using expanded column addition</li> <li>partition 3-digit numbers into hundreds, tens and ones.</li> </ul>
			Lesson 84 Add two 3-digit numbers using expanded column addition; Investigate patterns in numbers when adding them (S: Place-value additions)	<ul style="list-style-type: none"> <li>add two three-digit numbers using expanded written addition</li> <li>investigate number patterns in adding 3-digit numbers</li> <li>begin to make predictions</li> <li>begin to use a systematic approach to test their predictions</li> <li>know what a palindromic number is.</li> </ul>
			Lesson 85 Choose to solve addition using a mental method or expanded column addition (written method) (S: 8 Times Table)	<ul style="list-style-type: none"> <li>begin to choose a mental or written method for solving addition</li> <li>read and solve simple addition word problems.</li> </ul>
18	Measurement <b>(MEA)</b>	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)	<ul style="list-style-type: none"> <li>tell the time to the nearest minute on analogue and digital clocks (minutes past).</li> </ul>
			Lesson 87 Tell the time to the nearest minute on analogue and digital clocks (minutes to) (S: Months of the year)	<ul style="list-style-type: none"> <li>tell the time to the nearest minute on analogue and digital clocks (minutes to).</li> </ul>
			Lesson 88 Time events in minutes and seconds (S: Know the digital equivalent for times shown on an analogue clock)	<ul style="list-style-type: none"> <li>time events in minutes and seconds</li> <li>have sense of how long a minute is.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>find the time after a given interval (not crossing the hour).</li> </ul>
			Lesson 90 Calculate time intervals; Solve word problems	<ul style="list-style-type: none"> <li>calculate time intervals (not crossing</li> </ul>

			involving time (S: Bonds to 100)	the hour).
19	Mental addition and subtraction ( <b>MAS</b> ); Number and place value ( <b>NPV</b> )	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))	<ul style="list-style-type: none"> <li>order three 3-digit numbers</li> <li>find numbers between 3-digit numbers.</li> </ul>
			Lesson 91 Solve subtractions of 3-digit – 3-digit numbers using counting up (Frog) (S: Multiplying by ten)	<ul style="list-style-type: none"> <li>subtract 3-digit numbers by counting up from the smaller to the larger number. (Frog)</li> </ul>
			Lesson 93 Solve subtractions of 3-digit – 3-digit numbers using counting up (Frog) (S: Dividing by ten)	<ul style="list-style-type: none"> <li>subtract 3-digit numbers in the 200s by counting up</li> <li>add several numbers 1-digit and a 2-digit.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>subtract 3-digit numbers using counting up (Frog)</li> <li>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</li> <li>look for patterns in numbers by looking at the ones digits, the tens digits etc.</li> </ul>
20	Mental multiplication and division ( <b>MMD</b> ); Number and place value ( <b>NPV</b> )	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 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)	<ul style="list-style-type: none"> <li>subtract by counting back</li> <li>subtract by counting up (Frog)</li> <li>choose an appropriate method to subtract by counting up or back</li> </ul>
			Lesson 96 Double numbers up to 100 by partitioning (S: Double 5 to 20 and corresponding halves)	<ul style="list-style-type: none"> <li>use partitioning to double any two-digit number</li> <li>understand the relationship between doubling and halving.</li> </ul>
			Lesson 97 Double and halve numbers up to 100 by partitioning; Solve word problems involving doubling and halving (S: Count in steps of 50)	<ul style="list-style-type: none"> <li>halve even two-digit numbers</li> <li>decide where halving or doubling is needed to solve word problems.</li> </ul>
			Lesson 98 Begin to multiply numbers between 10 and 25 by single-digit numbers using grid method (S: 30 times table)	<ul style="list-style-type: none"> <li>begin to use the grid method to multiply numbers from 10 to 25 by single-digit numbers.</li> </ul>
			Lesson 99 Multiply numbers between 10 and 25 by single-digit numbers using grid (S: 40 times table)	<ul style="list-style-type: none"> <li>use the grid method to multiply numbers between 10 and 25 by single-digit numbers.</li> </ul>
			Lesson 100 Dividing multiples of 10 by single digit numbers using known tables facts; eg $60 \div 3$ or $80 \div 4$ etc See the relation between multiplication and division; eg $20 \times 3 = 60$ , $? \times 3 = 60$ , 60	<ul style="list-style-type: none"> <li>solve problems involving 3-digit multiples of ten divided by single digit numbers using relevant tables facts</li> </ul>

			$\div 3 = 20$ (S: 3 and 4 times table)	<ul style="list-style-type: none"> <li>use mathematical reasoning in solving problems.</li> </ul>
<b>Summer 1</b>				
<b>Week</b>	<b>Strands</b>	<b>Weekly summary</b>		
21	Mental addition and subtraction ( <b>MAS</b> ); Fractions, ratio and proportion ( <b>FRP</b> )	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 $\frac{1}{2}$ ; 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)	<ul style="list-style-type: none"> <li>add 1-digit numbers to 3-digit numbers</li> <li>use number facts to add.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>subtract a single digit number from a 3-digit number</li> <li>use number facts to subtract 1-digit numbers by counting back in chunks.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>add and subtract multiples of ten to/from 3-digit numbers</li> <li>use number facts to solve mental additions and subtractions of multiples of ten to &amp; from 3-digit numbers.</li> </ul>
			Lesson 104 Compare and order fractions with the same denominator; Begin to recognise equivalences of $\frac{1}{2}$ (S: Subtract multiples of 100 from 3-digit numbers)	<ul style="list-style-type: none"> <li>read and write fractions using correct notation e.g. <math>\frac{1}{2}</math> <math>\frac{1}{4}</math> etc.</li> <li>compare and order fractions with the same denominator.</li> </ul>
			Lesson 105 Add and subtract fractions with the same denominator [within one whole, not mixed numbers] (S: Fractions which equal 1)	<ul style="list-style-type: none"> <li>understand the concept of fractions as parts of numbers</li> <li>add and subtract fractions with the same denominator</li> <li>recognise equivalence of a half.</li> </ul>
22	Written multiplication and division ( <b>WMD</b> ); Mental multiplication and division ( <b>MMD</b> )	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)	<ul style="list-style-type: none"> <li>multiply numbers by 2, 3, 4, 5 and 8, and understand the inverse.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>use scaling to multiply heights and weights by 2, 4, 8, 5 and 10.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>use times tables and place value to multiply multiples of 10 by 2, 3, 4 and 5.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>multiply numbers between 10 and 30 by 3, 4 and 5 using the grid method.</li> </ul>
			Lesson 110 Use the grid method to multiply two-digit numbers by 3, 4, 5 and 8 (S: 8 times table)	<ul style="list-style-type: none"> <li>multiply two-digit numbers by single-digit numbers using known <math>\times</math> facts, place value and commutativity.</li> </ul>
23	Mental multiplication	Divide without	Lesson 111 Division without remainders, just beyond the 12 <sup>th</sup>	<ul style="list-style-type: none"> <li>begin to use chunking to divide</li> </ul>



	and division ( <b>MMD</b> ); Written multiplication and division ( <b>WMD</b> )	remainders, just beyond the 12 <sup>th</sup> 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	multiple (S: Division facts for 3, 4 and 5 times tables)	numbers just beyond the times tables.
			Lesson 112 Division without remainders, just beyond the 12 <sup>th</sup> multiple (S: Division facts for the 8 times table)	<ul style="list-style-type: none"> <li>use chunking to divide numbers just beyond the times tables, no remainders.</li> </ul>
			Lesson 113 Division using chunking, with remainders (S: Telling the time: matching digital to analogue times)	<ul style="list-style-type: none"> <li>divide numbers above the 12th multiple of the divisor using chunking</li> <li>find remainders when dividing.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>multiply numbers up to two-digit numbers by 3, 4, 5 or 8 and use them to solve word problems.</li> </ul>
			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 $90 \div 3$ )	<ul style="list-style-type: none"> <li>use the grid method to multiply two-digit numbers by 3, 4, 5 and 8</li> <li>begin to use rounding to estimate.</li> </ul>
24	Statistics ( <b>STA</b> ); Measurement ( <b>MEA</b> )	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)	<ul style="list-style-type: none"> <li>draw a pictogram where one symbol represents two units.</li> </ul>
			Lesson 117 Draw and interpret bar graphs and pictograms where one square/symbol represents two units; Draw tally charts (S: Reading scales)	<ul style="list-style-type: none"> <li>draw a pictogram where one symbol represents two units</li> <li>draw a bar chart where one step represents two units</li> <li>understand that we can also have scales of 5:1 or 10:1.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>have a feel for the weight of 100g</li> <li>measure weights to the nearest 50g</li> <li>know the relationship between grams and kilograms.</li> </ul>
			Lesson 119 Estimate and weigh objects to the nearest 100g (S: Find a time a given number of minutes later)	<ul style="list-style-type: none"> <li>begin to estimate weights in multiples of 100g</li> <li>weight items to the nearest 50g.</li> </ul>
			Lesson 120 Draw and interpret bar graphs where one square represents 100 units (S: Make amounts of money)	<ul style="list-style-type: none"> <li>draw and interpret tables and bar charts with an interval of 100g.</li> </ul>
25	Mental addition and subtraction ( <b>MAS</b> ); Written addition and subtraction ( <b>WAS</b> )	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)	<ul style="list-style-type: none"> <li>add a 2-digit and a 3-digit number using a mental strategy.</li> </ul>
			Lesson 122 Add two 3-digit numbers using mental strategies (S: Compare 3-digit numbers)	<ul style="list-style-type: none"> <li>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.</li> </ul>
			Lesson 123 Add two 3-digit numbers using column written	<ul style="list-style-type: none"> <li>add two 3-digit numbers using</li> </ul>



			addition (S: Rounding using a number line)	column addition <ul style="list-style-type: none"> <li>• use reasoning and systematic trial and error to investigate creating additions with a given total.</li> </ul>
			Lesson 124 Add 3-digit numbers using column addition (S: Adding 2-3 multiples of ten)	<ul style="list-style-type: none"> <li>• add 3-digit numbers using column addition (making extra tens, hundreds or both).</li> </ul>
			Lesson 125 Choose to solve additions of 3-digit numbers using mental or column addition (S: Convert units of time: weeks to days)	<ul style="list-style-type: none"> <li>• choose an appropriate method to solve addition of 3-digit numbers</li> <li>• add 3-digit numbers using mental strategies</li> <li>• add 3-digit numbers using column addition.</li> </ul>
<b>Summer 2</b>				
<b>Week</b>	<b>Strands</b>	<b>Weekly summary</b>		
26	Written addition and subtraction ( <b>WAS</b> ); Mental addition and subtraction ( <b>MAS</b> )	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)	<ul style="list-style-type: none"> <li>• add 2-digit numbers in towers of 3 or 4 numbers accurately using column addition.</li> <li>• add 3-digit numbers in towers of 3 accurately using column addition.</li> </ul>
			Lesson 127 Add four 2 and 3-digit numbers using the column addition (S: Add several multiples of ten)	<ul style="list-style-type: none"> <li>• add 2-digit numbers in towers of 3 or 4 accurately using column addition</li> <li>• add 3-digit numbers in towers of 3 accurately using column addition.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>• subtract 3-digit numbers using counting up (frog)</li> <li>• add to the next ten and the next hundred.</li> </ul>
			Lesson 129 Subtract 3-digit numbers using counting up (Frog) [subtraction answers under 70] (S: Add two 2-digit numbers)	<ul style="list-style-type: none"> <li>• subtract 3-digit numbers using counting up (frog)</li> <li>• add to the next ten and the next hundred</li> <li>• add two 2-digit numbers using mental strategies.</li> </ul>
			Lesson 130 Solve word problems choosing an appropriate method (S: Subtract by counting back using number facts)	<ul style="list-style-type: none"> <li>• solve word problems using addition or subtraction</li> <li>• use mental strategies to add numbers</li> <li>• choose appropriate strategy to solve subtraction.</li> </ul>

27	Written addition and subtraction ( <b>WAS</b> ); Mental addition and subtraction ( <b>MAS</b> ); Measurement ( <b>MEA</b> )	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)	<ul style="list-style-type: none"> <li>add 3-digit numbers using column addition</li> <li>understand and use measures context when solving additions</li> </ul>
			Lesson 132 Add 3-digit numbers using column addition; Solve problems involving measures (S: Add several 1-digit numbers)	<ul style="list-style-type: none"> <li>add 3-digit numbers using column addition</li> <li>understand and use measures context when solving additions.</li> </ul>
			Lesson 133 Solve subtractions of 3-digit numbers using counting up on a line (Frog) (S: Complements to the next hundred)	<ul style="list-style-type: none"> <li>solve subtractions of 3-digit numbers using counting up (Frog)</li> <li>know bonds to ten and multiple of ten bonds to a hundred to solve the first two hops of a counting up (Frog) subtraction</li> <li>use mathematical reasoning to explain patterns</li> <li>use systematic thinking to generate all possible types of number.</li> </ul>
			Lesson 134 Solve subtractions of 3-digit numbers using counting up on a line (Frog) (S: Place 3-digit numbers on a line)	<ul style="list-style-type: none"> <li>solve subtractions of 3-digit numbers using counting up (Frog)</li> <li>solve a problem in a measures context answering in a sentence using the appropriate unit.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>choose the appropriate method to add (mental or column addition)</li> <li>choose the appropriate method to subtract (mental or counting up using Frog).</li> </ul>
28	Measurement ( <b>MEA</b> ); Geometry: properties of shapes ( <b>GPS</b> )	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))	<ul style="list-style-type: none"> <li>recognise and use the terms: horizontal, vertical, parallel, perpendicular and diagonal</li> <li>draw horizontal, vertical, parallel, perpendicular and diagonal lines.</li> </ul>
			Lesson 137 Identify 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)	<ul style="list-style-type: none"> <li>recognise angles in shapes and identify right angles (90°)</li> <li>recognise parallel and perpendicular lines in shapes</li> <li>begin to identify lines of symmetry in 2D shapes.</li> </ul>

		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 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)	<ul style="list-style-type: none"> <li>understand and use the term perimeter</li> <li>measure simple rectilinear perimeters by counting the squares</li> <li>begin to measure perimeter using a ruler to measure in centimetres and adding the lengths of the sides.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>tell the time to the nearest minute</li> <li>begin to use am and pm correctly and understand these terms.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>tell the time to the nearest five minutes; Begin to tell the time to the nearest minute</li> <li>begin to use am and pm correctly and understand these terms</li> <li>realise that we can use a 24 hour clock.</li> </ul>
29	Written multiplication and division ( <b>WMD</b> ); Fractions, ratio and proportion ( <b>FRP</b> ); Decimals, percentages and their equivalence to fractions ( <b>DPE</b> )	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)	<ul style="list-style-type: none"> <li>multiply two-digit numbers by single-digit numbers using known <math>\times</math> facts and commutativity</li> <li>begin to estimate products.</li> </ul>
			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))	<ul style="list-style-type: none"> <li>use chunking' to solve divisions by 3, 4, 5 and 8 with and without remainders (answers less than 20).</li> </ul>
			Lesson 143 Solve word problems, first deciding whether they need multiplication or division to solve them (S: Division facts for 8 times table)	<ul style="list-style-type: none"> <li>solve word problems involving 2-digit by single-digit multiplication or division</li> <li>make sense of a word problem and write the relevant calculations.</li> </ul>
			Lesson 144 Recognise tenths and equivalent fractions (S: Compare fractions with the same denominator)	<ul style="list-style-type: none"> <li>recognise tenths and equivalent fractions.</li> </ul>
			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)	<ul style="list-style-type: none"> <li>find one tenth of multiples of ten (e.g. <math>1/10</math> of 30 and <math>1/10</math> of 240)</li> <li>begin to find see that we can find one tenth of single-digit numbers (e.g. <math>1/10</math> of 4 is <math>4/10</math>).</li> </ul>
30	Written addition and subtraction ( <b>WAS</b> );	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	<ul style="list-style-type: none"> <li>use a written column method of addition to add three-digit numbers</li> </ul>

	Mental addition and subtraction ( <b>MAS</b> ); Written multiplication and division ( <b>WMD</b> )	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)	<ul style="list-style-type: none"> <li>• use mental strategies to add numbers.</li> </ul>
			Lesson 147 Written subtraction (Frog) (S: Complements to 10 and 100)	<ul style="list-style-type: none"> <li>• subtract three-digit numbers</li> <li>• say which subtractions need to be written down and which can be done mentally</li> <li>• begin to explain mathematical patterns.</li> </ul>
			Lesson 148 Find change using counting up subtraction; Check subtraction using addition (S: Bonds to 100)	<ul style="list-style-type: none"> <li>• find change for amounts to £10 and £20.</li> </ul>
			Lesson 149 Multiply numbers between 10 and 25 by single-digit numbers using grid method (S: Times tables [2x, 3x, 4x, 5x, 8x])	<ul style="list-style-type: none"> <li>• use the grid method to multiply numbers between 10 and 40 by single-digit numbers.</li> </ul>
			Lesson 150 Solving division problems just above the tables facts (S: Divide by 10 with a remainder)	<ul style="list-style-type: none"> <li>• divide numbers above the tables by subtracting ten times the divisor.</li> </ul>