



# Horningsham Primary School

## Maths Planning

### Year 3 and 4



## Year 3 and Year 4 Long Term Planning

	Year 3	Year 4
Number and Place Value	<ul style="list-style-type: none"> <li>Children should now be using multiples of 2, 3, 4, 5, 8, 50 and 100.</li> <li>Children should use larger numbers to at least 1000, applying partitioning related to place value using varied and increasingly complex problems, building on work in Year 2 (e.g. <math>146 = 100</math> and <math>40</math> and <math>6</math>, <math>46 = 30</math> and <math>16</math>).</li> <li>Using a variety of representations, including those related to measure, children should continue to count in ones, tens and hundreds, so that they become fluent in the order and place value of numbers to 1000.</li> </ul>	<ul style="list-style-type: none"> <li>Using a variety of representations, including measures, children should become fluent in the order and place value of numbers beyond 1000, including counting in tens and hundreds, and maintaining fluency in other multiples through varied and frequent practice.</li> <li>They begin to extend their knowledge of the number system to include the decimal numbers and fractions that they have met so far.</li> <li>They connect estimation and rounding numbers to the use of measuring instruments.</li> <li>Roman numerals should be put in their historical context so children understand that there have been different ways to write whole numbers and that the important concepts of zero and place value were introduced over a period of time.</li> </ul>
Addition Subtraction	<ul style="list-style-type: none"> <li>Children should practise solving varied addition and subtraction questions. For mental calculations with two-digit numbers, the answers could exceed 100.</li> <li>Children should use their understanding of place value and partitioning, and practise using columnar addition and subtraction with increasingly large numbers up to three digits to become fluent (see National Curriculum Appendix 1).</li> </ul>	<ul style="list-style-type: none"> <li>Children should continue to practise both mental methods and columnar addition and subtraction with increasingly large numbers to aid fluency (see National Curriculum Appendix 1).</li> </ul>
Multiplication and Division	<ul style="list-style-type: none"> <li>Children should continue to practise their mental recall of multiplication tables when they are calculating mathematical statements in order to improve fluency. Through doubling, they connect the 2, 4 and 8 multiplication tables.</li> <li>Children should develop efficient mental methods, for example, using commutativity (e.g. <math>4 \times 12 \times 5 = 4 \times 5 \times 12 = 20 \times 12 = 240</math>) and multiplication and division facts (e.g. using <math>3 \times 2 = 6</math>, <math>6 \div 3 = 2</math> and <math>2 \times 6 = 12</math>) to derive related facts (<math>30 \times 2 = 60</math>, <math>60 \div 3 = 20</math> and <math>20 \times 3 = 60</math>).</li> <li>Children should develop reliable written methods for multiplication and division, starting with calculations of two-digit numbers by one-digit numbers and progressing to the formal written methods of short multiplication and division.</li> <li>Children should solve simple problems in contexts, deciding which of the four operations to use and why, including measuring and scaling contexts, and correspondence problems in which <math>m</math> objects are connected to <math>n</math> objects (e.g. 3 hats and 4 coats, how many different outfits; 12 sweets shared equally between 4 children; 4 cakes shared equally between 8 children).</li> </ul>	<ul style="list-style-type: none"> <li>Children should continue to practise recalling and using multiplication tables and related division facts to aid fluency.</li> <li>Children should practise mental methods and extend this to three-digit numbers to derive facts, for example <math>200 \times 3 = 600</math> into <math>600 \div 3 = 200</math>.</li> <li>Children should practise to become fluent in the formal written method of short multiplication for multiplying using multi-digit numbers, and short division with exact answers when dividing by a one-digit number (see App1).</li> <li>Children should write statements about the equality of expressions (e.g. use the distributive law <math>39 \times 7 = 30 \times 7 + 9 \times 7</math> and associative law <math>(2 \times 3) \times 4 = 2 \times (3 \times 4)</math>). They combine their knowledge of number facts and rules of arithmetic to solve mental and written calculations, e.g. <math>2 \times 6 \times 5 = 10 \times 6</math>.</li> <li>Children should solve two-step problems in contexts, choosing the appropriate operation, working with increasingly harder numbers. This should include correspondence questions such as the number of choices of a meal on a menu, or three cakes shared equally between 10 children.</li> </ul>
Statistics	<ul style="list-style-type: none"> <li>Children should understand and use simple scales (e.g. 2, 5, 10 units per cm) in pictograms and bar charts with increasing accuracy.</li> <li>They should continue to interpret data presented in many contexts.</li> </ul>	<ul style="list-style-type: none"> <li>Children should understand and use a greater range of scales in their representations and should begin to relate the graphical representation of data to recording change over time.</li> </ul>

Fractions	<ul style="list-style-type: none"> <li>Children should connect tenths to place value and decimal measures, not restricted to decimals between 0 and 1 inclusive and to division by 10.</li> <li>They should begin to understand unit and non-unit fractions as numbers on the number line, and deduce relations between them, such as size and equivalence. They should go beyond the <math>[0, 1]</math> interval, and <math>\frac{1}{4} + \frac{3}{4} = 1</math> for example, relating this to measure.</li> <li>Children should understand the relation between unit fractions as operators and division by integers.</li> <li>They should continue to recognise fractions in the context of parts of a whole, numbers, measurements, a shape, or unit fractions as a division of a quantity.</li> <li>Children should practise adding and subtracting fractions with the same denominator through a variety of increasingly complex problems to improve fluency.</li> </ul>	<ul style="list-style-type: none"> <li>Children should connect hundredths to tenths and place value and decimal measure.</li> <li>Children should extend the use of the number line to connect fractions, numbers and measures.</li> <li>Children should understand the relation between non-unit fractions and multiplication and division of quantities, with particular emphasis on tenths and hundredths.</li> <li>Children should make connections between fractions of a length, of a shape and as a representation of one whole or set of quantities. Children should use factors and multiples to recognise equivalent fractions and simplify where appropriate.</li> <li>Children should continue practice in adding and subtracting fractions with the same denominator, to become fluent through a variety of increasingly complex problems beyond one whole. Children should be taught throughout that decimals and fractions are different ways of expressing numbers and proportions.</li> <li>Children's understanding of the number system and decimal place value should be extended at this stage to tenths and then hundredths. This includes relating the decimal notation to division of whole number by 10 and later 100.</li> <li>Children should practise counting using simple fractions and decimal fractions, both forwards and backwards.</li> <li>Children should learn decimal notation and the language associated with it, including in the context of measurements. They should make comparisons and order decimal amounts and quantities that are expressed to the same number of decimal places. They should be able to represent numbers with one or two decimal places in several ways, such as on number lines.</li> </ul>
Measurement	<ul style="list-style-type: none"> <li>Children should continue to measure using the appropriate tools and units, progressing to using a wider range of measures, including comparing and using mixed units (1 kg and 200g) and simple equivalents of mixed units (5m = 500cm).</li> <li>The comparison of measures should also include simple scaling and this should connect to multiplication.</li> <li>Children should continue to become fluent in recognising the value of coins, by adding and subtracting amounts, including mixed units, and giving change using manageable amounts. They should record £ and p separately. The decimal recording of money is introduced formally in Year 4.</li> <li>Children should use both analogue and digital 12- hour clocks and record their times. In this way they become fluent in and prepared for using digital 24- hour clocks in Year 4.</li> </ul>	<ul style="list-style-type: none"> <li>Children should build on their understanding of place value and decimal notation to record measures, including money. They should use multiplication to convert from larger to smaller units.</li> <li>They should relate area to arrays and multiplication. Perimeter can be expressed algebraically as <math>2(a + b)</math> where <math>a</math> and <math>b</math> are the dimensions in the same unit.</li> </ul>
Geometry: Position & Direction Properties of	<ul style="list-style-type: none"> <li>Children's knowledge of the properties of shapes is extended at this stage to symmetrical and non- symmetrical polygons and polyhedra. Children extend their use of the properties of shapes. They should be able to describe the properties of 2D and 3D shapes using accurate language, including lengths of lines and acute and obtuse for angles greater or lesser than a right angle.</li> <li>Children should draw and measure straight lines in centimetres.</li> </ul>	<ul style="list-style-type: none"> <li>Children should draw a pair of axes in one quadrant, with equal scales and integer labels. They should read, write and use pairs of coordinates (2, 5), including using coordinate-plotting ICT tools.</li> <li>Children should continue to classify shapes using geometrical properties, extending to classifying different triangles and quadrilaterals.</li> <li>Children should compare and order angles in preparation for using a protractor and compare lengths and angles to decide if a polygon is regular or irregular.</li> <li>Children should draw symmetric patterns using a variety of media to become familiar with different orientations of lines of symmetry; and recognise line symmetry in a variety of diagrams, including where the line of symmetry does not dissect the reflected shape.</li> </ul>

## Medium Term Planning for Y3 and Y4 Autumn Term 1

Wk	Topic	Y3 Curriculum Objective		Y4 Curriculum Objective
1	Reading, writing and ordering two- and three-digit numbers	<ul style="list-style-type: none"><li>To recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</li><li>To compare and order numbers up to 1000.</li><li>To read and write numbers up to 1000 in numerals and in words.</li></ul>		<ul style="list-style-type: none"><li>To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).</li><li>To identify, represent and estimate numbers using different representations.</li><li>To order and compare numbers beyond 1000.</li><li>To round any number to the nearest 10, 100 or 1000.</li><li>To count in multiples of 6, 7, 9, 25, 1000.</li><li>To find 1000 more or less than a given number.</li></ul>
	Number, place value and rounding			
		Wk 1 and 2 Starters Counting and estimating	<ul style="list-style-type: none"><li>To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number.</li><li>To identify, represent and estimate numbers using different representations.</li></ul>	
2	Number facts to 20 and to 100 Addition and Subtraction of 1 and 2-digit numbers	<ul style="list-style-type: none"><li>To add and subtract numbers mentally, including:<ul style="list-style-type: none"><li>a three-digit number and ones</li><li>a three-digit number and tens</li><li>a three-digit number and hundreds.</li></ul></li><li>To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li></ul>		<ul style="list-style-type: none"><li>To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li><li>To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li></ul>
	Mental addition and subtraction			
		Wk 1 and 2 Starters Counting and estimating	<ul style="list-style-type: none"><li>To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number.</li><li>To identify, represent and estimate numbers using different representations.</li></ul>	
3 & 4	Multiplication and division facts	<ul style="list-style-type: none"><li>To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li><li>To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</li><li>To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>		<ul style="list-style-type: none"><li>To recall multiplication facts for multiplication tables up to <math>12 \times 12</math>. (starter)</li><li>To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li><li>To solve problems involving multiplying and adding, including using the distributive law to multiply 2 digit numbers by one digit numbers Integer scaling problems and harder correspondent problems and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
	Multiplication and division facts			
5	Measuring using mm, cm and metres	<ul style="list-style-type: none"><li>To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).</li><li>To measure the perimeter of simple 2D shapes.</li></ul>		<ul style="list-style-type: none"><li>To convert between different units of measure (for example, kilometre to metre; hour to minute).</li><li>To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</li><li>To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li><li>To estimate, compare and calculate different measures, including money in pounds and pence.</li></ul>
	Measures			
6	Recognising, describing and making 2D and 3D shapes	<ul style="list-style-type: none"><li>To draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them with increasing accuracy.</li><li>To identify horizontal, vertical, perpendicular and parallel lines in relation to other lines.</li></ul>		<ul style="list-style-type: none"><li>To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</li><li>To identify lines of symmetry in 2D shapes presented in different orientations.</li><li>To complete a simple symmetric figure with respect to a specific line of symmetry.</li></ul>
	Geometry: properties of shapes			
Assess and review		<ul style="list-style-type: none"><li>To assess the half-term’s work. Assessment Monday 20<sup>th</sup> October</li></ul>		



## Medium Term Planning for Y3 and Y4 Autumn Term 2

Wk	Topic	Y3 Curriculum Objective	Y4 Curriculum Objective
<b>Starters</b>	<b>Addition and subtraction</b> of two- and three-digit numbers, using a number line and columns	<ul style="list-style-type: none"> <li>To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.</li> <li>To estimate the answer to a calculation and use inverse operations to check answers.</li> <li>To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>	<ul style="list-style-type: none"> <li>To recall multiplication facts for multiplication tables up to <math>12 \times 12</math>.</li> <li>To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li> <li>To recognise and use factor pairs and commutativity in mental calculations.</li> <li>To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li> </ul>
	<b>Multiplication</b>		
<b>1</b>	<b>Counting and estimating</b>	<ul style="list-style-type: none"> <li>To add and subtract numbers mentally, including:               <ul style="list-style-type: none"> <li>a three-digit number and ones</li> <li>a three-digit number and tens</li> <li>a three-digit number and hundreds.</li> </ul> </li> <li>To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>	<ul style="list-style-type: none"> <li>To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li> <li>To estimate and use inverse operations to check answers to a calculation.</li> <li>To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> </ul>
	<b>Mental and written addition and subtraction</b>		
<b>2</b>	<b>Multiplication and division:</b> doubling, halving and $TU \times U$	<ul style="list-style-type: none"> <li>To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li> <li>To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</li> <li>To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li> </ul>	<ul style="list-style-type: none"> <li>To recall multiplication facts for multiplication tables up to <math>12 \times 12</math>.</li> <li>To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li> <li>To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</li> <li>To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li> </ul>
	<b>Multiplication and division</b>		
<b>3</b>	<b>Fractions:</b> representing, comparing and ordering unit fractions of shapes and numbers	<ul style="list-style-type: none"> <li>To recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</li> <li>To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.</li> <li>To compare and order unit fractions, and fractions with the same denominators.</li> <li>To solve problems that involve all of the above.</li> </ul>	<ul style="list-style-type: none"> <li>To count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.</li> <li>To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.</li> <li>To recognise and show, using diagrams, families of common equivalent fractions.</li> </ul>
	<b>Fractions</b>		
<b>4</b>	Read and write <b>time</b> to 5 minute intervals	<ul style="list-style-type: none"> <li>To tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.</li> <li>To estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as am/pm, morning, afternoon, noon and midnight.</li> <li>To know the number of seconds in a minute and the number of days in each month, year and leap year.</li> <li>To compare durations of events, for example to calculate the time taken by particular events or tasks.</li> </ul>	<ul style="list-style-type: none"> <li>To read, write and convert time between analogue and digital 12- and 24-hour clocks.</li> <li>To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li> <li>To interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</li> <li>To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.</li> </ul>
	<b>Data handling and time</b>		
<b>5</b>	<b>Data:</b> Read, present and interpret pictograms and tables	<ul style="list-style-type: none"> <li>To interpret and present data using bar charts, pictograms and tables</li> <li>To solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables.</li> </ul>	
<b>6</b>	<b>Geometry</b>		<ul style="list-style-type: none"> <li>To describe positions on a 2D grid as coordinates in the first quadrant.</li> <li>To plot specified points and draw sides to complete a given polygon.</li> <li>To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</li> <li>To identify acute and obtuse angles and compare and order angles up to two right angles by size.</li> </ul>

## Medium Term Planning for Y3 and Y4 Spring Term 1

Wk	Topic	Y3 Curriculum Objective	Y4 Curriculum Objective
1	Number, place value and rounding	<ul style="list-style-type: none"><li>● To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number.</li><li>● To recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</li><li>● To compare and order numbers up to 1000.</li><li>● To identify, represent and estimate numbers using different representations.</li><li>● To read and write numbers up to 1000 in numerals and in words.</li><li>● To solve number problems and practical problems involving these ideas.</li></ul>	<ul style="list-style-type: none"><li>● To find 1000 more or less than a given number.</li><li>● To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).</li><li>● To order and compare numbers beyond 1000.</li><li>● To identify, represent and estimate numbers using different representations.</li><li>● To round any number to the nearest 10, 100 or 1000.</li><li>● To solve number and practical problems that involve all of the above and with increasingly large positive numbers.</li><li>● To read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value.</li></ul>
	Number, place value and rounding		
2	Use partitioning to add and subtract two-digit numbers	<ul style="list-style-type: none"><li>● To add and subtract numbers mentally, including:<ul style="list-style-type: none"><li>● a three-digit number and ones</li><li>● a three-digit number and tens</li><li>● a three-digit number and hundreds.</li></ul></li><li>● To estimate the answer to a calculation and use inverse operations to check answers.</li><li>● To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li></ul>	<ul style="list-style-type: none"><li>● To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li><li>● To estimate and use inverse operations to check answers to a calculation.</li><li>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li><li>● To estimate, compare and calculate different measures, including money in pounds and pence.</li></ul>
	Mental and written addition and subtraction		
3	Multiplication and division: multiplying one- digit numbers by multiples of 10	<ul style="list-style-type: none"><li>● To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li><li>● To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</li><li>● To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>	<ul style="list-style-type: none"><li>● To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</li><li>● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li><li>● To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</li><li>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
	Mental and written multiplication		
4	Multiplication and division: practical and informal written methods	<ul style="list-style-type: none"><li>● To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li><li>● To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</li><li>● To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>	<ul style="list-style-type: none"><li>● To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</li><li>● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li></ul>
	Mental and written division		
5	Measures: adding and subtracting money	<ul style="list-style-type: none"><li>● To add and subtract amounts of money to give change, using both £ and p in practical contexts.</li></ul>	<ul style="list-style-type: none"><li>● To count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.</li><li>● To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.</li><li>● To recognise and show, using diagrams, families of common equivalent fractions.</li></ul>
	Fractions		
6	Recognising and drawing right angles in 2D shapes	<ul style="list-style-type: none"><li>● To recognise angles as a property of shape and associate angles with turning.</li><li>● To identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.</li></ul>	<ul style="list-style-type: none"><li>● To recognise and write decimal equivalents of any number of tenths or hundredths.</li><li>● To recognise and write decimal equivalents to <math>\frac{1}{4}</math>; <math>\frac{1}{2}</math>; <math>\frac{3}{4}</math>.</li><li>● To find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths.</li><li>● To round decimals with one decimal place to the nearest whole number.</li><li>● To compare numbers with the same number of decimal places up to two decimal places.</li><li>● To solve simple measure and money problems involving fractions and decimals to two decimal places.</li></ul>
	Fractions and decimals		
Assess and review		<ul style="list-style-type: none"><li>● To assess the half-term’s work.</li></ul>	

## Medium Term Planning for Y3 and Y4 Spring Term 2

Wk	Topic	Y3 Curriculum Objective	Y4 Curriculum Objective
1	<b>Addition and subtraction</b> of two- digit numbers using columns	<ul style="list-style-type: none"><li>● To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.</li><li>● To estimate the answer to a calculation and use inverse operations to check answers.</li><li>● To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li></ul>	<ul style="list-style-type: none"><li>● To estimate and use inverse operations to check answers to a calculation.</li><li>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li><li>● To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</li><li>● To recognise and use factor pairs and commutativity in mental calculations.</li><li>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
	<b>Mental calculation</b>		
2	<b>Multiplication and division:</b> multiplying by multiples of 10, and dividing with remainders	<ul style="list-style-type: none"><li>● To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li><li>● To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</li><li>● To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>	<ul style="list-style-type: none"><li>● To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li><li>● To estimate and use inverse operations to check answers to a calculation.</li><li>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li></ul>
	<b>Written addition and subtraction</b>		
3	<b>Multiplication and division:</b> multiplying and dividing larger numbers	<ul style="list-style-type: none"><li>● To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li><li>● To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</li><li>● To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>	<ul style="list-style-type: none"><li>● To read, write and convert time between analogue and digital 12- and 24-hour clocks.</li><li>● To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li></ul>
	<b>Time</b>		
4	<b>Measuring</b> using grams and kilograms	<ul style="list-style-type: none"><li>● To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).</li></ul>	<ul style="list-style-type: none"><li>● To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</li><li>● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li><li>● To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</li><li>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
	<b>Written multiplication and division</b>		
5	<b>Fractions:</b> representing, comparing and ordering unit and non-unit fractions of shapes and numbers	<ul style="list-style-type: none"><li>● To count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.</li><li>● To recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</li><li>● To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.</li><li>● To recognise and show, using diagrams, equivalent fractions with small denominators.</li><li>● To compare and order unit fractions, and fractions with the same denominators.</li><li>● To solve problems that involve all of the above.</li></ul>	<ul style="list-style-type: none"><li>● To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</li><li>● To identify acute and obtuse angles and compare and order angles up to two right angles by size.</li><li>● To describe positions on a 2D grid as coordinates in the first quadrant.</li><li>● To describe movements between positions as translations of a given unit to the left/right and up/down.</li><li>● To plot specified points and draw sides to complete a given polygon.</li></ul>
	<b>Geometry</b>		
6	<b>Data:</b> Read and interpret bar charts, using scales	<ul style="list-style-type: none"><li>● To interpret and present data using bar charts, pictograms and tables.</li><li>● To solve one-step and two-step questions such as ‘How many more?’ and ‘How many fewer?’ using information presented in scaled bar charts and pictograms and tables.</li></ul>	<ul style="list-style-type: none"><li>● To interpret and present discrete data using bar charts and continuous data using time graphs.</li><li>● To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.</li><li>● To convert between different units of measure (kilometre to metre; hour to minute).</li><li>● To estimate, compare and calculate different measures, including money in pounds and pence.</li></ul>
	<b>Data handling and measurement</b>		
<b>Assess and review</b>		<ul style="list-style-type: none"><li>● <b>To assess the half-term’s work.</b></li></ul>	

## Medium Term Planning for Y3 and Y4 Summer Term 1

Wk	Topic	Y3 Curriculum Objective	Y4 Curriculum Objective
1	Read, write and <b>order and round</b> two- and three- digit numbers	<ul style="list-style-type: none"><li>● To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number.</li><li>● To recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</li><li>● To compare and order numbers up to 1000.</li><li>● To identify, represent and estimate numbers using different representations.</li><li>● To read and write numbers up to 1000 in numerals and in words.</li><li>● To solve number problems and practical problems involving these ideas.</li></ul>	<ul style="list-style-type: none"><li>● To count in multiples of 6, 7, 9, 25 and 1000.</li><li>● To find 1000 more or less than a given number.</li><li>● To count backwards through zero to include negative numbers.</li><li>● To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).</li><li>● To order and compare numbers beyond 1000.</li><li>● To identify, represent and estimate numbers using different representations.</li><li>● To round any number to the nearest 10, 100 or 1000.</li><li>● To solve number and practical problems that involve all of the above and with increasingly large positive numbers.</li></ul>
	<b>Place value ideas</b>		
2	<b>Multiplication and division</b> problems	<ul style="list-style-type: none"><li>● To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li><li>● To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</li><li>● To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <i>n</i> objects are connected to <i>m</i> objects.</li></ul>	<ul style="list-style-type: none"><li>● To estimate and use inverse operations to check answers to a calculation.</li><li>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li><li>● To estimate, compare and calculate different measures, including money in pounds and pence.</li></ul>
	<b>Mental addition and subtraction and measures</b> (use measures as a context for problems)		
3	<b>Addition and subtraction</b> of three-digit numbers and 1s, 10s and 100s	<ul style="list-style-type: none"><li>● To add and subtract numbers mentally, including:<ul style="list-style-type: none"><li>● a three-digit number and ones</li><li>● a three-digit number and tens</li><li>● a three-digit number and hundreds.</li></ul></li><li>● To estimate the answer to a calculation and use inverse operations to check answers.</li><li>● To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li></ul>	<ul style="list-style-type: none"><li>● To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li><li>● To estimate and use inverse operations to check answers to a calculation.</li><li>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li></ul>
	<b>Written addition and subtraction and measures</b>		
4	<b>Addition &amp; subtraction</b> of two- and three-digit numbers using columns	<ul style="list-style-type: none"><li>● To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.</li><li>● To estimate the answer to a calculation and use inverse operations to check answers.</li><li>● To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li></ul>	<ul style="list-style-type: none"><li>● To recall multiplication and division facts for multiplication tables up to 12 × 12.</li><li>● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li><li>● To recognise and use factor pairs and commutativity in mental calculations.</li><li>● To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</li><li>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <i>n</i> objects are connected to <i>m</i> objects.</li></ul>
	<b>Mental and written multiplication and division</b>		
5	<b>Shape:</b> identifying horizontal, vertical, and curved lines	<ul style="list-style-type: none"><li>● To draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them with increasing accuracy.</li><li>● To recognise angles as a property of shape and associate angles with turning.</li><li>● To identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.</li><li>● To identify horizontal, vertical, perpendicular and parallel lines in relation to other lines.</li></ul>	<ul style="list-style-type: none"><li>● To count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.</li><li>● To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.</li><li>● To recognise and show, using diagrams, families of common equivalent fractions.</li><li>● To add and subtract fractions with the same denominator.</li></ul>
	<b>Fractions</b>		
6	<b>Measuring</b> using millilitres and litres	<ul style="list-style-type: none"><li>● To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).</li></ul>	<ul style="list-style-type: none"><li>● To convert between different units of measure (kilometre to metre; hour to minute).</li><li>● To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</li><li>● To find the area of rectilinear shapes by counting.</li><li>● To estimate, compare and calculate different measures, including money in pounds and pence.</li></ul>
	<b>Area and perimeter</b> of rectilinear shapes and capacity		
Assess and review		<ul style="list-style-type: none"><li>● To assess the half-term’s work.</li></ul>	



## Medium Term Planning for Y3 and Y4 Summer Term 2

Wk	Topic	Y3 Curriculum Objective	Y4 Curriculum Objective
1	<b>Addition and subtraction</b> of two- and three-digit numbers using and columns	<ul style="list-style-type: none"><li>To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.</li><li>To estimate the answer to a calculation and use inverse operations to check answers.</li><li>To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li></ul>	<ul style="list-style-type: none"><li>To estimate and use inverse operations to check answers to a calculation.</li><li>To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li><li>To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</li><li>To recognise and use factor pairs and commutativity in mental calculations.</li><li>To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
	<b>Mental calculations</b>		
2	<b>Multiplication and division</b> problems: written methods	<ul style="list-style-type: none"><li>To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li><li>To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</li><li>To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>	<ul style="list-style-type: none"><li>To convert between different units of measure (kilometre to metre; hour to minute).</li><li>To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</li><li>To find the area of rectilinear shapes by counting.</li><li>To estimate, compare and calculate different measures, including money in pounds and pence.</li><li>To read, write and convert time between analogue and digital 12- and 24-hour clocks.</li><li>To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li></ul>
	<b>Measures</b>		
3	Short <b>multiplication and division</b>	<ul style="list-style-type: none"><li>To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li><li>To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</li><li>To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>	<ul style="list-style-type: none"><li>To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li><li>To estimate and use inverse operations to check answers to a calculation.</li><li>To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li></ul>
	<b>Written addition and subtraction</b>		
4	<b>Fractions:</b> equivalence, addition and subtraction within 1, finding tenths	<ul style="list-style-type: none"><li>To count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.</li><li>To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.</li><li>To recognise and show, using diagrams, equivalent fractions with small denominators.</li><li>To add and subtract fractions with the same denominator within one whole (<math>\frac{5}{7} + \frac{1}{7} = \frac{6}{7}</math>).</li><li>To solve problems that involve all of the above.</li></ul>	<ul style="list-style-type: none"><li>To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</li><li>To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li><li>To recognise and use factor pairs and commutativity in mental calculations.</li><li>To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</li><li>To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
	<b>Mental and written multiplication and division</b>		
5	Read and write <b>time</b> using 12 and 24 hour	<ul style="list-style-type: none"><li>To tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.</li><li>To estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as am/pm, morning, afternoon, noon and midnight.</li><li>To know the number of seconds in a minute and the number of days in each month, year and leap year.</li><li>To compare durations of events, for example to calculate the time taken by particular events or tasks.</li></ul>	<ul style="list-style-type: none"><li>To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</li><li>To identify acute and obtuse angles and compare and order angles up to two right angles by size.</li><li>To identify lines of symmetry in 2D shapes presented in different orientations.</li><li>To describe positions on a 2D grid as coordinates in the first quadrant.</li><li>To describe movements between positions as translations of a given unit to the left/right and up/down.</li><li>To plot specified points and draw sides to complete a given polygon.</li></ul>
	<b>2D shape, angles and coordinates</b>		
6	<b>Data:</b> construct and interpret bar charts using scales	<ul style="list-style-type: none"><li>To interpret and present data using bar charts, pictograms and tables.</li><li>To solve one-step and two-step questions such as ‘How many more?’ and ‘How many fewer?’ using information presented in scaled bar charts and pictograms and tables.</li></ul>	<ul style="list-style-type: none"><li>To interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</li><li>To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.</li></ul>
	<b>Statistics</b>		
<b>Assess and review</b>		<ul style="list-style-type: none"><li>To assess the half-term’s work.</li></ul>	

