



Year 4 Maths Small Steps Planning Framework:

The Buxton Maths small steps planning framework (adapted from the White Rose Resources) are a series of learning objectives that children need to master in order to progress onto more challenging lessons. There are small steps for each year group, which are sorted into blocks of weeks and linked to the Maths National Curriculum 2014 found at the end of this document, which can also be referred to. Ideally, you should follow the small steps in the order they are presented, as they have been carefully planned in this order to help children gradually develop their skills. While the small steps outline the learning objectives that children should work towards in lessons, how you plan and deliver these lessons is down to you. So here are some tips for planning lessons using the small steps.

- The small steps are a series of learning objectives and milestones, but that's not to say that one step equals one lesson. You may be able to cover several small steps in one lesson, or a single step might require a whole lesson or even several lessons. You'll need to judge how easily children will grasp these small steps and plan lessons to make sure you cover all steps within the blocks of time. If block 1 is weeks 1-3, you'll need to have covered all block 1 small steps by the end of week 3.
- Each small step assumes a certain level of understanding from the children — understanding that they should have gained while progressing through other steps. So before you progress onto more complex and challenging topics, assess children's progress to make sure they have a firm understanding of the small steps you've already covered; for example if children are unable to multiply and divide by 10,100, 1000 then do not progress to converting measurements as this skill will be needed to be able to do this.
- Some steps will be more challenging than others for children to master, so when planning lessons, think about how much support children will need when tackling each step. Consider encouraging independent learning where possible, such as during fluency tasks (use classroom secrets resources). For more challenging topics, think about guiding children through concepts with teaching slides or one-to-one support. You may need to put additional support measures in place for children with learning difficulties, SEND children or EAL children.
- Deep learning should be encouraged to ensure children develop a strong and lasting understanding of concepts that can be built upon in future lessons. So rather than flying through the small steps, schedule in time to allow children to revisit what they've learned so that they can consolidate their knowledge. In each block ensure children have mathematical fluency tasks, encourage them to explore different approaches to maths problems and apply their understanding to different contexts.

As teaching is taught in blocks it is **important** that children are given opportunities to revisit and consolidate their learning. These have been highlighted as part of your oral mental starters (OMS) but could also be part of your early work learning during registration.

Autumn / Week	1	2	3	4	5	6	7	8	9	10	11	12
Area of focus	Place value			Addition and subtraction			Multiplication and division.		Fractions	End of term assessment	Measurement: Length and Perimeter	Application and consolidation
Small steps	<ul style="list-style-type: none"> • Roman numerals to 100. • Round to the nearest 10. • Round to the nearest 100. • Count in 1,000s. • 1,000s, 100s, 10s and 1s. • Partitioning. • Number line to 10,000. • 1,000 more or less. • Compare numbers. • Order numbers. • Round to the nearest 1,000. • Count in 25s. • Negative numbers. <p>+ Weekly times tables lesson – focus revising 3/4/18 times tables.</p> <p>OMS;</p> <ul style="list-style-type: none"> • Times tables singing 			<ul style="list-style-type: none"> • Add and subtract 1s, 10s, 100s and 1000s. • Add two 4-digit numbers – no exchange. • Add two 4-digit numbers – one exchange. • Add two 4-digit numbers – more than one exchange. • Subtract two 4-digit numbers – no exchange. • Subtract two 4-digit numbers – one exchange. • Subtract two 4-digit numbers – more than one exchange. • Efficient subtraction. • Estimate answers. • Checking strategies <p>+ Weekly times tables lesson – focus revising 3/4/8 times tables and division facts</p> <p>OMS;</p> <ul style="list-style-type: none"> • Times tables singing 			<ul style="list-style-type: none"> • Multiplication – equal groups. • Multiply by 10. • Multiply by 100. • Divide by 10. • Divide by 100. • Multiply by 1 and 0. • Divide by 1. <p>+Weekly time tables lesson focus x6</p> <ul style="list-style-type: none"> • Multiplying by 6. • Dividing by 6. • The 6 times-table. <p>OMS;</p> <ul style="list-style-type: none"> • Times tables singing • Counting in 25's. 		<ul style="list-style-type: none"> • What is a fraction? • Equivalent fractions (1) • Equivalent fractions (2). • Fractions greater than 1. • Count in fractions. <p>+ Weekly times tables lesson – focus revising 3/4/6/8 times tables and division facts.</p>	<p>+Recap on time from year 3 – telling the time to the nearest minute.</p> <p>+ Weekly times tables lesson – focus revising 3/4/6/8 times tables and related division facts.</p>	<ul style="list-style-type: none"> • Kilometres. • Perimeter on a grid. • Perimeter of a rectangle. • Perimeter of rectilinear shapes. <p>+ Weekly times tables lesson – focus revising 3/4/6/8 times tables and division facts</p> <p>OMS;</p>	<p>Consolidation and application of skills to problem solving.</p> <p>OMS;</p> <ul style="list-style-type: none"> • Times tables singing • Counting in 50's and 100's • Daily number challenge partitioning, adding multiples of 10 and 100. • Add and subtraction calculations.

	<ul style="list-style-type: none"> Daily number challenge partitioning numbers in different ways 1 more / 1 less Doubling 		<ul style="list-style-type: none"> Daily number challenge partitioning numbers in different ways 1/10/100 more and less Ordering numbers Doubling and halving Number bonds Rounding 		<ul style="list-style-type: none"> Daily number challenge partitioning, adding multiples of 10 and 100. Add and subtract pairs of 4 digit numbers daily. Negative numbers 		<p>OMS;</p> <ul style="list-style-type: none"> Times tables singing Roman numerals Daily number challenge to include place value/calculation s. 		<ul style="list-style-type: none"> Times tables singing Multiply / divide by 10 and 100. 		<ul style="list-style-type: none"> Recap shape 	
Spring / Week	1	2	3	4	5	6	7	8	9	10	11	12
	Place value / addition and subtraction		Multiplication and division	Number : Fractions		Number : Decimals, Multiplication and division		Geometry – Property of a shape		Assessment	Measurement - Time	Geometry – position and direction
	<ul style="list-style-type: none"> Revisit place value / addition and subtraction calculations from previous term and application to solving related problems/ varied fluency. <p>+ Weekly times tables lesson – focus revising 3/4/6/8 times tables and related division facts.</p> <p>OMS;</p> <ul style="list-style-type: none"> Times tables singing Fractions Number bonds 		<ul style="list-style-type: none"> Multiplication – equal groups. Multiply and divide by 10 and 100. Multiply by 100. <p>+Weekly time tables lesson focus x7</p> <ul style="list-style-type: none"> Multiplying by 7 Dividing by 7. The 7 times-table. <p>OMS;</p> <ul style="list-style-type: none"> Times tables singing Addition and subtraction calculations 4 digit numbers. 	<ul style="list-style-type: none"> Recap on fractions from previous term; recognising fractions, equivalent fractions, counting in fractions. Add 2 or more fractions. Subtract 2 fractions. Subtract from whole amounts. Calculate fractions of a quantity. Problem solving – calculate quantities. <p>+ Weekly times tables lesson – focus revising 4/6/7/8 times tables and related division facts.</p> <p>OMS;</p> <ul style="list-style-type: none"> Times tables singing Rounding Addition and subtraction calculations 4 digit numbers. Roman Numerals 		<ul style="list-style-type: none"> Recap fractions and fractions equivalent to decimals. Recognise tenths and hundredths. Tenths as decimals. Tenths on a place value grid. Tenths on a number line. Divide 1 digit by 10. Divide 2 digits by 10. Hundredths. Hundredths as decimals. Hundredths on a place value grid. Divide 1 or 2 digits by 100. <p>+ Weekly times tables lesson – focus revising 4/6/7/8 times tables and related division facts.</p> <p>OMS:</p> <ul style="list-style-type: none"> Recap 2d/3d shape Addition and subtraction calculations 4 digit numbers. Negative numbers. Fractions- add and subtract 		<ul style="list-style-type: none"> Identify angles. Compare and order angles. Triangles. Quadrilaterals. Lines of symmetry. Complete a symmetric figure. <p>+ Weekly times tables lesson – focus revising 4/6/7/8 times tables and related division facts.</p> <p>OMS:</p> <ul style="list-style-type: none"> Addition and subtraction calculations 4 digit numbers. Place value recap Rounding Tenths and hundredths 		<p>+Recap on perimeter.</p> <p>+ Weekly times tables lesson – focus revising 3/4/6/7/8 times tables and related division facts.</p>	<ul style="list-style-type: none"> Hours, minutes and seconds. Years, months, weeks and days. Analogue to digital – 12 hour. Analogue to digital – 24 hour <p>+ Weekly times tables lesson – focus revising 4/6/7/8 times tables and related division facts.</p> <p>OMS;</p> <ul style="list-style-type: none"> Times tables singing Addition and subtraction calculations 4 digit numbers. Multiply and divide by 10 and 100. 	<ul style="list-style-type: none"> Describe position. Draw on a grid. Move on a grid. Describe a movement on a grid.

Summer / Week	1	2	3	4	5	6	7	8	9	10	11	12
	Addition/subtraction Measurement – Money	Multiplication and division	Number : Fractions and Decimals	Measurement : Area	Multiplication and division	Statistics	Assessment	All four operations and end of year assessment.				
	<p>Recap on place value and calculations from previous terms and application to problems.</p> <p>+ <ul style="list-style-type: none"> • Pounds and pence. • Ordering amounts of money. • Using rounding to estimate money. </p> <p>+ Weekly times tables lesson – focus revising all times tables facts.</p> <p>OMS ; <ul style="list-style-type: none"> • Singing times tables • Recap 2/3d shape • Tenths and hundredths </p>	<ul style="list-style-type: none"> • Multiplication – equal groups. • Multiply and divide by 10 and 100. • Multiply by 100. <p>+Weekly time tables lesson focus x9 <ul style="list-style-type: none"> • Multiplying by 9 • Dividing by 9. • The 9 times-table. </p> <p>OMS; <ul style="list-style-type: none"> • Times tables singing • Position and direction. • Addition and subtraction calculations 4 digit numbers </p>	<p>Revisit fractions from term 1 and 2.</p> <ul style="list-style-type: none"> • Equivalent fractions • Ordering fractions • Calculating with fractions • Make a whole. • Write decimals. • Compare decimals. • Order decimals. • Round decimals. • Halves and quarters. <p>+ Weekly times tables lesson – focus revising all times tables facts.</p> <p>OMS : <ul style="list-style-type: none"> •Times tables singing •Addition and subtraction calculations 4 digit numbers. • 2d/3d shape properties/symmetry/angles. • Rounding </p>	<ul style="list-style-type: none"> • What is area? • Counting squares • Making shapes. • Comparing area. <p>+ Weekly times tables lesson – focus revising all times tables facts.</p> <p>OMS : <ul style="list-style-type: none"> •Times tables singing •Addition and subtraction calculations 4 digit numbers. • Time • Multiply/divide by 10/100. </p>	<ul style="list-style-type: none"> • Multiply 3 numbers. • Factor pairs. • Efficient multiplication. • Written methods. • Multiply 2-digits by 1 –digit. • Multiply 3-digits by 1-digit. • Divide 2-digits by 1-digit (1). • Divide 2-digits by 1-digit (2). • Correspondence problems. <p>+ Weekly times tables lesson – focus revising all times tables facts.</p> <p>OMS : <ul style="list-style-type: none"> •Times tables singing •Addition and subtraction calculations 4 digit numbers • Fractions • Roman numerals • Negative numbers </p>	<ul style="list-style-type: none"> • Interpret charts. • Comparison, sum and difference. • Introducing line graphs. • Line graphs. <p>OMS : <ul style="list-style-type: none"> •Times tables singing •All four operations calculations. • Fractions • Rounding • Area </p>	<p>+ recap on perimeter and length.</p> <p>+ Weekly times tables lesson – focus revising all times tables and related division facts.</p>	<p>Application to problem solving – measurement/money/data.</p> <p>+ Weekly times tables lesson – focus revising all times tables facts</p> <p>OMS ; <ul style="list-style-type: none"> • Singing times tables • Recap 2/3d shape </p>				

Year 4 Maths National Curriculum

NUMBER - Number and place value.	NUMBER - Addition and Subtraction	NUMBER - Multiplication and Division	NUMBER - Fractions	MEASUREMENT	GEOMETRY - Properties of Shape	GEOMETRY - Position and direction	STATISTICS - Data
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> count in multiples of 6, 7, 9, 25 and 1000 find 1000 more or less than a given number count backwards through zero to include negative numbers recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) order and compare numbers beyond 1000 identify, represent and estimate numbers using different representations round any number to the nearest 10, 100 or 1000 solve number and practical problems that involve all of the above and with increasingly large positive numbers 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. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate estimate and use inverse operations to check answers to a calculation solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> recall multiplication and division facts for multiplication tables up to 12×12 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 recognise and use factor pairs and commutativity in mental calculations multiply two-digit and three-digit numbers by a one-digit number using formal written layout 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> recognise and show, using diagrams, families of common equivalent fractions count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten 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 identify, name and write equivalent fractions of a given fraction, including tenths and hundredths add and subtract fractions with the same denominator. <p>Decimals & Fractions</p> <ul style="list-style-type: none"> recognise and write decimal equivalents of any number of tenths or hundredths recognise and write decimal equivalents to $\frac{1}{4}$; $\frac{1}{2}$; $\frac{3}{4}$ 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 round decimals with one decimal place to the nearest whole number compare numbers with the same number of decimal places up to two decimal places solve simple measure and money problems involving fractions and decimals to two decimal places. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> convert between different units of measure (e.g. kilometre to metre; hour to minute) measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres find the area of rectilinear shapes by counting estimate, compare and calculate different measures, including money in pounds and pence read, write and convert time between analogue and digital 12 and 24-hour clocks solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes identify acute and obtuse angles and compare and order angles up to two right angles by size identify lines of symmetry in 2-D shapes presented in different orientations complete a simple symmetric figure with respect to a specific line of symmetry. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> describe positions on a 2-D grid as coordinates in the first quadrant describe movements between positions as translations of a given unit to the left/right and up/down plot specified points and draw sides to complete a given polygon. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> interpret and present discrete data using bar charts and continuous data using line graphs solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.