



Mathematics Learning Sequence

	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Place Value Number	<p>Range 1:</p> <ul style="list-style-type: none"> ➤ React to change of amount when those amounts are significant (more than double) <p>Range 2:</p> <ul style="list-style-type: none"> ➤ May be aware of number names through their enjoyment of action rhymes and songs that relate to numbers ➤ Looks for things which have moved out of sight <p>Range 3:</p> <ul style="list-style-type: none"> ➤ Comparison ➤ Responds to words like 'lots' or 'more' ➤ When counting – says some counting words ➤ May engage in counting like behaviour (making sounds and pointing or saying some 	<ul style="list-style-type: none"> ➤ Compare amounts ➤ Find 1, 2 and 3 ➤ Subitise 1, 2 and 3 ➤ Represent 1, 2 and 3 ➤ Composition of 1, 2 and 3 ➤ Find 4 and 5 ➤ Subitise 4 and 5 ➤ Represent 4 and 5 ➤ Composition of 4 and 5 ➤ Composition of 4 and 5 ➤ Introduce zero ➤ Find 0 to 5 ➤ Subitise 0 to 5 ➤ Represent 0 to 5 ➤ Composition ➤ Conceptual subitising to 5 ➤ Find 6, 7 and 8 ➤ Represent 6, 7 and 8 ➤ Composition of 6, 7 and 8 ➤ Make pairs (odd and even) ➤ Find 9 and 10 ➤ Compare numbers to 10 	<p>(Within 10)</p> <ul style="list-style-type: none"> ➤ Sorting objects ➤ Counting objects ➤ Counting objects from a larger group ➤ Representing objects ➤ Recognise numbers as words ➤ Count on from any number ➤ 1 more ➤ Count backwards within 10 ➤ 1 less ➤ Compare groups by matching ➤ Fewer, more, same ➤ Less than, greater than, equal to ➤ Compare numbers ➤ Order objects and numbers ➤ The number line <p>(Within 20)</p> <ul style="list-style-type: none"> ➤ Count within 20 	<ul style="list-style-type: none"> ➤ Numbers to 20 ➤ Count objects to 100 by making 10's ➤ Recognise tens and ones ➤ Use a place value chart ➤ Partition numbers to 100 ➤ Write numbers to 100 in words ➤ Flexibly partition numbers to 100 ➤ Write numbers to 100 in expanded form ➤ 10's on the number line to 100 ➤ 10's and 1's on a number line to 100 ➤ Estimate numbers on a number line ➤ Compare objects ➤ Compare numbers ➤ Order objects and numbers ➤ Count in 2's, 5's and 10's ➤ Count in 3's 	<ul style="list-style-type: none"> ➤ Represent numbers to 100 ➤ Partition numbers to 100 ➤ Number line to 100 ➤ Hundreds ➤ Represent numbers to 1,000 ➤ Partition numbers to 1,000 ➤ Flexible partitioning numbers to 1,000 ➤ Hundreds, tens and ones ➤ Find 1, 10 or 100 more or less ➤ Number line to 1,000 ➤ Estimate on a number line to 1,000 ➤ Compare numbers to 1,000 ➤ Order numbers to 1,000 ➤ Count in 50's 	<ul style="list-style-type: none"> ➤ Represent numbers to 1,000 ➤ Partition numbers to 1,000 ➤ Number line to 1,000 ➤ Thousands ➤ Represent Numbers to 10,000 ➤ Partition numbers to 10,000 ➤ Flexible portioning of numbers to 10,000 ➤ Find 1, 10, 100 and 1,000 more or less ➤ Number line to 10,000 ➤ Estimate on a number line to 10,000 ➤ Compare numbers to 10,000 ➤ Order numbers to 10,000 ➤ Roman numerals ➤ Round to the nearest 10 	<ul style="list-style-type: none"> ➤ Roman numerals to 1,000 ➤ Numbers to 10,000 ➤ Numbers to 100,000 ➤ Numbers to 1,000,000 ➤ Read and write numbers to 1,000,000 ➤ Powers of 10 ➤ 10/100/1,000/10,000/100,000 more or less ➤ Partition numbers to 1,000,000 ➤ Number line to 1,000,000 ➤ Compare and order numbers to 100,000 ➤ Compare and order numbers to 1,000,000 ➤ Round to the nearest 10, 100 or 1,000 ➤ Round within 100,000 ➤ Round within 1,000,000 	<ul style="list-style-type: none"> ➤ Numbers to 1,000,000 ➤ Numbers to 10,000,000 ➤ Read and write numbers to 10,000,000 ➤ Powers of 10 ➤ Number line to 10,000,000 ➤ Compare and order any integers ➤ Round any integer ➤ Negative numbers

<ul style="list-style-type: none"> ➤ numbers in sequence ➤ Cardinality ➤ Uses number words like 'one' or 'two' and sometimes responds accurately when asked to give one or two things. ➤ Range 4: ➤ Comparison ➤ Begin to compare and recognise changes in numbers of things, using words like more, lots or 'same' ➤ Counting ➤ Begins to say numbers in order, some of which are in the right order (ordinality) ➤ Cardinality (how many?) ➤ In everyday situations, takes or gives two or three objects from a group ➤ Beginning to notice numerals (number symbols) ➤ Beginning to count on their fingers 	<ul style="list-style-type: none"> ➤ Represent 9 and 10 ➤ Conceptual subitising to 10 ➤ Composition to 10 ➤ Bonds to 10 (2 parts) ➤ Make arrangements of 10 ➤ Bonds to 10 (3 parts) ➤ Explore even and odd ➤ Build numbers beyond 10 (10-13) ➤ Continue patterns beyond 10 (10-13) ➤ Build numbers beyond 10 (14-20) ➤ Continue patterns beyond 10 (14-20) ➤ Verbal counting beyond 20 ➤ Verbal counting patterns 	<ul style="list-style-type: none"> ➤ Understand 10 ➤ Understand 11, 12 and 13 ➤ Understand 14, 15 and 16 ➤ Understand 17, 18 and 19 ➤ Understand 20 ➤ 1 more and 1 less ➤ The number line to 20 ➤ Estimate on a number line to 20 ➤ Compare numbers to 20 ➤ Order numbers to 20 ➤ (Within 50) ➤ Count from 20 to 50 ➤ 20, 30, 40 and 50 ➤ Count by making groups of tens ➤ Groups of tens and ones ➤ Partition into tens and ones ➤ The number line to 50 ➤ Estimate on a number line to 50 ➤ 1 more, 1 less ➤ (Within 100) ➤ Count from 50 to 100 ➤ Tens to 100 ➤ Partition into tens and ones ➤ The number line to 100 ➤ 1 more, 1 less 			<ul style="list-style-type: none"> ➤ Round to the nearest 100 ➤ Round to the nearest 1,000 ➤ Round to the nearest 10, 100 or 1,000 		
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			<ul style="list-style-type: none"> ➤ Compare numbers with the same number of tens ➤ Compare any two numbers 					
Addition and Subtraction <i>Number</i>	<ul style="list-style-type: none"> ➤ Range 3: ➤ Uses number words like 'one' or 'two' and sometimes responds accurately when asked to give one or two things. ➤ Responds to words like 'lots' or 'more' ➤ Range 4: ➤ Comparison ➤ Begin to compare and recognise changes in numbers of things, using words like more, lots or 'same' ➤ Counting ➤ Begins to say numbers in order, some of which are in the right order (ordinality) ➤ Cardinality (how many?) ➤ In everyday situations, takes or gives two or three objects from a group ➤ Beginning to notice numerals 	<ul style="list-style-type: none"> ➤ 1 more ➤ 1 less ➤ Double to 8 (find a double) ➤ Double to 8 (make a double) ➤ Doubles to 10 (find a double) ➤ Doubles to 10 (make a double) ➤ Add more ➤ How many did I add? ➤ Take away ➤ How many did I take away? 	<p><u>(Within 10)</u></p> <ul style="list-style-type: none"> ➤ Introduce parts and wholes ➤ Part-whole model ➤ Write number sentences ➤ Fact families – addition facts ➤ Number bonds within 10 ➤ Systematic number bonds within 10 ➤ Number bonds to 10 ➤ Addition – Add together ➤ Addition – Add more ➤ Addition problems ➤ Find a part ➤ Subtraction – Find a part ➤ Fact families – the eight facts ➤ Subtraction – take away/cross out – how many left? ➤ Subtraction – take away – how many left? ➤ Subtraction on a number line ➤ Add or subtract 1 or 2 	<ul style="list-style-type: none"> ➤ Bonds to 10 ➤ Fact families – addition and subtraction bonds within 20 ➤ Related facts ➤ Bonds to 100 (tens) ➤ Add and subtract 1's ➤ Add by making 10 ➤ Add three 1-digit numbers ➤ Add to the next 10 ➤ Add across a 10 ➤ Subtract across 10 ➤ Subtract from a 10 ➤ Subtract a 1-digit number from a 2-digit number (across a 10) ➤ 10 more, 10 less ➤ Add and subtract 10's ➤ Add 2-digit numbers (not across a ten) ➤ Add 2-digit numbers (across a ten) ➤ Subtract 2-digit numbers (not across a ten) ➤ Subtract 2-digit numbers (across a ten) 	<ul style="list-style-type: none"> ➤ Apply number bonds within 10 ➤ Add and subtract 1's ➤ Add and subtract 10's ➤ Add and subtract 100's ➤ Spot the pattern ➤ Add 1's across a 10 ➤ Add 10's across a 100 ➤ Make connections ➤ Add two numbers (no exchange) ➤ Subtract two numbers (no exchange) ➤ Add two numbers (across a 10) ➤ Add two numbers (across a 100) ➤ Subtract two numbers (across a 10) ➤ Subtract two numbers (across a 100) ➤ Add 2-digit and 3-digit numbers ➤ Subtract a 2-digit number 	<ul style="list-style-type: none"> ➤ Add and subtract 1's, 10's, 100's and 1,000's ➤ Add up to 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 	<ul style="list-style-type: none"> ➤ Mental strategies ➤ Add whole numbers with more than four digits ➤ Subtract whole numbers with more than four digits ➤ Round to check answers ➤ Inverse operations (addition and subtraction) ➤ Multi-step addition and subtraction problems ➤ Compare calculations ➤ Find missing numbers 	<ul style="list-style-type: none"> ➤ Add and subtract integers ➤ Solve multi-step problems ➤ Order of operations ➤ Mental calculations and estimation ➤ Reason for known facts

	(number symbols) ➤ Beginning to count on their fingers		(Within 20) ➤ Add by counting on within 20 ➤ Add ones using number bonds ➤ Find and make number bonds to 20 ➤ Doubles ➤ Near doubles ➤ Subtract ones using number bonds ➤ Subtraction – counting back ➤ Subtraction – finding the difference ➤ Related facts ➤ Missing number problems	➤ Mixed addition and subtraction ➤ Compare number sentences ➤ Missing number problems	from a 3-digit number ➤ Complements to 100 ➤ Estimate answers ➤ Inverse operations ➤ Make decisions			
Multiplication and Division <i>Number</i>		➤ Make pairs (odd and even) ➤ Double to 8 (find a double) ➤ Double to 8 (make a double) ➤ Combine 2 groups ➤ Doubles to 10 (find a double) ➤ Doubles to 10 (make a double) ➤ Explore even and odd ➤ Explore sharing ➤ Sharing ➤ Explore grouping ➤ Grouping ➤ Even and odd sharing	➤ Count in 2s ➤ Count in 10s ➤ Count in 5s ➤ Recognise equal groups ➤ Add equal groups ➤ Make arrays ➤ Make doubles ➤ Make equal groups – grouping ➤ Make equal groups - sharing	➤ Recognise equal groups ➤ Make equal groups ➤ Add equal groups ➤ Introduce the multiplication symbol ➤ Multiplication sentences ➤ Use arrays ➤ Make equal groups – grouping ➤ Make equal groups – sharing ➤ The 2 times-table ➤ Divide by 2 ➤ Doubling and halving ➤ Odd and even numbers	➤ Multiplication – equal groups ➤ Use arrays ➤ Multiples of 2 ➤ Multiples of 5 and 10 ➤ Sharing and grouping ➤ Multiply by 3 ➤ Divide by 3 ➤ The 3-times table ➤ Multiply by 4 ➤ Divide by 4 ➤ The 4-times table ➤ Multiply by 8 ➤ Divide by 8 ➤ The 8-times table ➤ The 2, 4 and 8 times-tables ➤ Multiples of 10	➤ Multiples of 3 ➤ Multiply and divide by 6 ➤ 6 times-table and division facts ➤ Multiply and divide by 9 ➤ 9 times-table and division facts ➤ The 3, 6 and 9 times tables ➤ Multiply and divide by 7 ➤ 7 times-table and division facts ➤ 11 times-table and division facts ➤ 12 times-table and division facts	➤ Multiples ➤ Common multiples ➤ Factors ➤ Common factors ➤ Prime numbers ➤ Square numbers ➤ Cube numbers ➤ Multiply by 10, 100 and 1,000 ➤ Divide by 10, 100 and 1,000 ➤ Multiples of 10, 100 and 1,000 ➤ Multiply up to a 4-digit number by a 1-digit number ➤ Multiply a 2-digit number by a 2-digit	➤ Common factors ➤ Common multiples ➤ Rules of divisibility ➤ Primes to 100 ➤ Square and cube numbers ➤ Multiply up to a 4-digit number by a 2-digit number ➤ Solve problems with multiplication ➤ Short division ➤ Division using factors ➤ Introduction to long division

		<ul style="list-style-type: none"> ➤ <i>Play with and build doubles</i> 		<ul style="list-style-type: none"> ➤ <i>The 10 times-table</i> ➤ <i>Divide by 10</i> ➤ <i>The 5-times table</i> ➤ <i>Divide by 5</i> ➤ <i>The 5 and 10 times-tables</i> 	<ul style="list-style-type: none"> ➤ <i>Related calculations</i> ➤ <i>Reasoning about multiplication</i> ➤ <i>Multiplying a 2-digit number by a 1-digit number – no exchange</i> ➤ <i>Multiplying a 2-digit number by a 1-digit number – with exchange</i> ➤ <i>Link multiplication and division</i> ➤ <i>Divide a 2-digit number by a 1-digit number – no exchange</i> ➤ <i>Divide a 2-digit number by a 1-digit number – flexible partitioning</i> ➤ <i>Divide a 2-digit number by a 1-digit number – with remainders</i> ➤ <i>Scaling</i> ➤ <i>How many ways?</i> 	<ul style="list-style-type: none"> ➤ <i>Multiply by 1 and 0</i> ➤ <i>Divide a number by 1 and itself</i> ➤ <i>Multiply three numbers</i> ➤ <i>Factor pairs</i> ➤ <i>Use factor pairs</i> ➤ <i>Multiply by 10</i> ➤ <i>Multiply by 100</i> ➤ <i>Divide by 10</i> ➤ <i>Divide by 100</i> ➤ <i>Related facts – multiplication and division</i> ➤ <i>Informal written methods for multiplication</i> ➤ <i>Multiply a 2-digit number by a 1-digit number</i> ➤ <i>Multiply a 3-digit number by a 1-digit number</i> ➤ <i>Divide a 2-digit number by a 1-digit number (1)</i> ➤ <i>Divide a 2-digit number by a 1-digit number (2)</i> ➤ <i>Divide a 3-digit number by a 1-digit number</i> ➤ <i>Correspondence problems</i> ➤ <i>Efficient multiplication</i> 	<ul style="list-style-type: none"> <i>number (area model)</i> ➤ <i>Multiply a 2-digit number by a 2-digit number</i> ➤ <i>Multiply a 3-digit number by a 2-digit number</i> ➤ <i>Multiply a 4-digit number by a 2-digit number</i> ➤ <i>Solve problems with multiplication</i> ➤ <i>Short division</i> ➤ <i>Divide a 4-digit number by a 1-digit number</i> ➤ <i>Divide with remainders</i> ➤ <i>Efficient division</i> ➤ <i>Solve problems with multiplication and division</i> 	<ul style="list-style-type: none"> ➤ <i>Long division with remainders</i> ➤ <i>Solve problems with division</i> ➤ <i>Solve multi-step problems</i> ➤ <i>Order of operations</i> ➤ <i>Mental calculations and estimation</i> ➤ <i>Reason for known facts</i>
<p>Fractions</p> <p><i>Number</i></p>			<ul style="list-style-type: none"> ➤ <i>Recognise half an object or shape</i> ➤ <i>Find a half of an object or shape</i> ➤ <i>Recognise a half of a quantity</i> 	<ul style="list-style-type: none"> ➤ <i>Introduction to parts and whole</i> ➤ <i>Equal and unequal parts</i> ➤ <i>Recognise a half</i> ➤ <i>Find a half</i> ➤ <i>Recognise a quarter</i> ➤ <i>Find a quarter</i> 	<ul style="list-style-type: none"> ➤ <i>Understand the denominators of unit fractions</i> ➤ <i>Compare and order unit fractions</i> ➤ <i>Understand the</i> 	<ul style="list-style-type: none"> ➤ <i>Understand the whole</i> ➤ <i>Count beyond 1</i> ➤ <i>Partition a mixed number</i> ➤ <i>Number lines with mixed numbers</i> 	<ul style="list-style-type: none"> ➤ <i>Find fractions equivalent to unit fractions</i> ➤ <i>Find fractions equivalent to non-unit fractions</i> ➤ <i>Recognise equivalent fractions</i> 	<ul style="list-style-type: none"> ➤ <i>Equivalent fractions and simplifying</i> ➤ <i>Equivalent fractions on a number line</i> ➤ <i>Compare and order (denominator)</i>

			<ul style="list-style-type: none"> ➤ Find a half of a quantity ➤ Recognise a quarter of an object or shape ➤ Find a quarter of an object or shape ➤ Recognise a quarter of a quantity ➤ Find a quarter of a quantity 	<ul style="list-style-type: none"> ➤ Recognise a third ➤ Find a third ➤ Find the whole ➤ Unit fractions ➤ Non-unit fractions ➤ Recognise the equivalence of a half and two quarters ➤ Recognise three-quarters ➤ Find three-quarters ➤ Count in fractions up to a whole 	<ul style="list-style-type: none"> numerators of non-unit fractions ➤ Understand the whole ➤ Compare and order non-unit fractions ➤ Fractions and scales ➤ Fractions on a number line ➤ Count in fractions on a number line ➤ Equivalent fractions on a number line ➤ Equivalent fractions as bar models ➤ Add fractions ➤ Subtract fractions ➤ Partition the whole ➤ Unit fractions of a set of objects ➤ Non-unit fractions of a set of objects ➤ Reasoning with fractions of an amount 	<ul style="list-style-type: none"> ➤ Compare and order mixed numbers ➤ Understand improper fractions ➤ Convert mixed numbers to improper fractions ➤ Convert improper fractions to mixed numbers ➤ Equivalent fractions on a number line ➤ Equivalent fraction families ➤ Add two or more fractions ➤ Add fractions and mixed numbers ➤ Subtract two fractions ➤ Subtract from whole amounts ➤ Subtract from mixed numbers 	<ul style="list-style-type: none"> ➤ Convert improper fractions to mixed numbers ➤ Convert mixed numbers to improper fractions ➤ Compare fractions less than 1 ➤ Order fractions less than 1 ➤ Compare and order fractions greater than 1 ➤ Add and subtract fractions with the same denominator within 1 ➤ Add fractions with a total greater than 1 ➤ Add to a mixed number ➤ Add two mixed numbers ➤ Subtract fractions ➤ Subtract from a mixed number ➤ Subtract from a mixed number – breaking the whole ➤ Subtract two mixed numbers ➤ Multiply a unit fraction by an integer 	<ul style="list-style-type: none"> ➤ Compare and order (numerator) ➤ Add and subtract simple fractions ➤ Add and subtract any two fractions ➤ Add mixed numbers ➤ Subtract mixed numbers ➤ Multi-step problems ➤ Multiply fractions by integers ➤ Multiply fractions by fractions ➤ Divide a fraction by an integer ➤ Divide any fraction by an integer ➤ Mixed questions with fractions ➤ Fraction of an amount ➤ Fraction of an amount – find the whole ➤ Fractions as division ➤ Fractions to percentages ➤ Equivalent fractions, decimals and percentages ➤ Order fractions,
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							<ul style="list-style-type: none"> ➤ Multiply a non-unit fraction by an integer ➤ Multiply a mixed number by an integer ➤ Calculate a fraction of a quantity ➤ Find the whole ➤ Use fractions as operators 	decimals and percentages
Decimals <i>Number</i>						<ul style="list-style-type: none"> ➤ Tenths as a fraction ➤ Tenths as decimals ➤ Tenths on a place value chart ➤ Tenths on a number line ➤ Divide a 1-digit number by 10 ➤ Divide a 2-digit number by 10 ➤ Hundredths as fractions ➤ Hundredths as decimals ➤ Hundredths on a place value chart ➤ Divide a 1 or 2-digit number by 100 ➤ Make a whole and tenths ➤ Make a whole with hundredths ➤ Partition decimals ➤ Flexibly partition decimals ➤ Compare decimals ➤ Order decimals 	<ul style="list-style-type: none"> ➤ Decimals up to 2 decimal places ➤ Equivalent fractions and decimals (tenths) ➤ Equivalent fractions and decimals (hundredths) ➤ Equivalent fractions and decimals ➤ Thousandths as fractions ➤ Thousandths as decimals ➤ Thousandths on a place value chart ➤ Order and compare decimals (same number of decimal places) ➤ Order and compare any decimals with up to 3 decimal places 	<ul style="list-style-type: none"> ➤ Place value within 1 ➤ Place value – integers and decimals ➤ Round decimals ➤ Add and subtract decimals ➤ Multiply by 10, 100 and 1,000 ➤ Divide by 10, 100 and 1,000 ➤ Multiply decimals by integers ➤ Divide decimals by integers ➤ Multiply and divide decimals in context ➤ Decimals and fraction equivalents ➤ Order fractions, decimals and percentages

- *Round to the nearest whole number*
- *Halves and quarters as decimals*

- *Round to the nearest whole number*
- *Round to 1 decimal place*
- *Use known facts to add and subtract decimals within 1*
- *Complements to 1*
- *Add and subtract decimals across 1*
- *Add decimals with the same number of decimal places*
- *Subtract decimals with the same number of decimal places*
- *Add decimals with different numbers of decimal places*
- *Subtract decimals with different numbers of decimal places*
- *Efficient strategies for adding and subtracting decimals*
- *Decimal sequences*
- *Multiply by 10, 100 and 1,000*
- *Divide by 10, 100 and 1,000*
- *Multiply and divide*

							<i>decimals – missing values</i>	
Percentages <i>Number</i>							<ul style="list-style-type: none"> ➤ <i>Understand percentages</i> ➤ <i>Percentages as fractions</i> ➤ <i>Percentages as decimals</i> ➤ <i>Equivalent fractions, decimals and percentages</i> 	<ul style="list-style-type: none"> ➤ <i>Understand percentages</i> ➤ <i>Percentage of amount – one step</i> ➤ <i>Percentage of amount – multi step</i> ➤ <i>Percentages – missing values</i> ➤ <i>Equivalent fractions, decimals and percentages</i> ➤ <i>Order fractions, decimals and percentages</i>
Negative numbers <i>Number</i>							<ul style="list-style-type: none"> ➤ <i>Understand negative numbers</i> ➤ <i>Count through zero in 1s</i> ➤ <i>Count through zero in multiples</i> ➤ <i>Compare and order negative numbers</i> ➤ <i>Find the difference</i> 	
Ratio <i>Number</i>							<ul style="list-style-type: none"> ➤ <i>Add or multiply?</i> ➤ <i>Use ratio language</i> ➤ <i>Introduction to the ratio symbol</i> ➤ <i>Ratio and fractions</i> ➤ <i>Scale drawing</i> ➤ <i>Use scale factors</i> ➤ <i>Similar shapes</i> 	

								<ul style="list-style-type: none"> ➤ Ratio problems ➤ Proportion problems ➤ Recipes
Algebra Number								<ul style="list-style-type: none"> ➤ 1-step function machines ➤ 2-step function machines ➤ Form expressions ➤ Substitution ➤ Formulae ➤ Form equations ➤ Solve 1-step equations ➤ Solve 2-step equations ➤ Find pairs of values ➤ Solve problems with two unknowns
Length and Height (Year R, 1 and 2) Volume (Year 1) Length and Perimeter (Year 3 and 4) Area (Year 4)	<ul style="list-style-type: none"> ➤ Range 3: Shows an interest in size and weight ➤ Beginning to arrange items in their own patterns (e.g. lining up toys) ➤ Range 4: Explores differences in size, length, weight and capacity 	<ul style="list-style-type: none"> ➤ Explore height ➤ Compare height ➤ Explore length ➤ Compare length 	<ul style="list-style-type: none"> ➤ Compare lengths and heights ➤ Measure length using objects ➤ Measure length in centimetres 	<ul style="list-style-type: none"> ➤ Measure in centimetres ➤ Measure in metres ➤ Compare heights and lengths ➤ Order lengths and heights ➤ Four operations with lengths and heights ➤ Four operations with volume and capacity 	<ul style="list-style-type: none"> ➤ Measure in metres and centimetres ➤ Measure in millimetres ➤ Measure in centimetres and millimetres ➤ Metres, centimetres and millimetres ➤ Equivalent lengths (metres and centimetres) ➤ Compare lengths ➤ Add lengths 	<ul style="list-style-type: none"> ➤ Measure in kilometres and metres ➤ Equivalent lengths (kilometres and metres) ➤ Perimeter on a grid ➤ Perimeter of a rectangle ➤ Perimeter of rectilinear shapes ➤ Find missing lengths in rectilinear shapes ➤ Calculate the perimeter of 	<ul style="list-style-type: none"> ➤ Perimeter of rectangles ➤ Perimeter of rectilinear shapes ➤ Perimeter of polygons ➤ Area of rectangles ➤ Area of compound shapes ➤ Estimate area ➤ Cubic centimetres ➤ Compare volume ➤ Estimate volume 	<ul style="list-style-type: none"> ➤ Shapes – same area ➤ Area and perimeter ➤ Area of a triangle – counting squares ➤ Area of a right-angled triangle ➤ Area of any triangle ➤ Area of a parallelogram ➤ Volume – counting cubes ➤ Volume of a cuboid

<p>Perimeter and Area (Year 5)</p> <p>Volume (Year 5)</p> <p>Area, Perimeter and Volume (Year 6)</p> <p><i>Measurement</i></p>					<ul style="list-style-type: none"> ➤ Subtract lengths ➤ What is perimeter? ➤ Measure perimeter ➤ Calculate perimeter 	<p><i>rectilinear shapes</i></p> <ul style="list-style-type: none"> ➤ Perimeter of regular polygons ➤ Perimeter of polygons ➤ What is area? ➤ Count squares ➤ Make shapes ➤ Compare areas 	<ul style="list-style-type: none"> ➤ Estimate capacity 	
<p>Mass, Capacity and Temperature Measurement</p>	<ul style="list-style-type: none"> ➤ Range 1: <i>Responds to size, reacting to very big or very small items they see or try to pick up</i> ➤ Range 2: <i>Shows an interest in objects of contrasting sizes in meaningful contexts</i> ➤ <i>Gets to know and enjoys daily routing</i> ➤ <i>Shows an interest in emptying containers</i> ➤ Range 3: <i>Shows an interest in size and weight</i> ➤ <i>Explore capacity by selecting, filling and emptying containers</i> 	<ul style="list-style-type: none"> ➤ Compare size ➤ Compare mass ➤ Compare capacity ➤ Explore simple patterns ➤ Copy and continue simple patterns ➤ Create simple patterns ➤ Find a balance ➤ Explore capacity 	<ul style="list-style-type: none"> ➤ Heavier and lighter ➤ Measure mass ➤ Compare mass ➤ Measure capacity ➤ Compare capacity ➤ Full and empty ➤ Compare volume 	<ul style="list-style-type: none"> ➤ Compare mass ➤ Measure in grams ➤ Measure in kilograms ➤ Four operations with mass ➤ Compare volume and capacity ➤ Measure in millilitres ➤ Measure in litres ➤ Four operations with volume and capacity ➤ Temperature 	<ul style="list-style-type: none"> ➤ Use scales ➤ Measure mass in grams ➤ Measure mass in kilograms and grams ➤ Equivalent masses (kilograms and grams) ➤ Compare mass ➤ Add and subtract mass ➤ Measure capacity and volume in millilitres ➤ Measure capacity and volume in litres and millilitres ➤ Equivalent capacities and volumes (litres and millilitres) ➤ Compare capacity and volume ➤ Add and subtract 			

	<ul style="list-style-type: none"> ➤ Beginning to arrange items in their own patterns (e.g. lining up toys) Range 4: ➤ Explores differences in size, length, weight and capacity 				capacity and volume			
Converting Units Measurement							<ul style="list-style-type: none"> ➤ Kilograms and kilometres ➤ Millimetres and millilitres ➤ Convert unit of length ➤ Convert between metric and imperial units ➤ Convert units of time ➤ Calculate with timetables 	<ul style="list-style-type: none"> ➤ Metric measures ➤ Convert metric measures ➤ Calculate with metric measures ➤ Miles and kilometres Imperial measures
Time Measurement	<ul style="list-style-type: none"> Range 1: ➤ Shows interest in patterned songs and rhymes, perhaps with repeated actions ➤ Begins to predict what happens next in predictable situations Range 2: ➤ Joins in with repeated actions in songs and stories ➤ Initiates and continues repeated patterns 	<ul style="list-style-type: none"> ➤ Talk about time ➤ Order and sequence time 	<ul style="list-style-type: none"> ➤ Before and after ➤ Days of the week ➤ Months of the year ➤ Hours, minutes and seconds ➤ Tell the time to the hour ➤ Tell the time to the half hour 	<ul style="list-style-type: none"> ➤ O'Clock and half past ➤ Quarter past and quarter to ➤ Tell time past the hour ➤ Tell time to the hour ➤ Tell the time to five minutes ➤ Minutes in an hour ➤ Hours in a day 	<ul style="list-style-type: none"> ➤ Roman numerals to 12 ➤ Tell the time to 5 minutes ➤ Tell the time to the minute ➤ Read time on a digital clock ➤ Use a.m and p.m ➤ Years, months and days ➤ Days and hours ➤ Hours and minutes – use start and end times ➤ Hours and minutes – use durations 	<ul style="list-style-type: none"> ➤ Years, months, weeks and days ➤ Hours, minutes and seconds ➤ Convert between analogue and digital times ➤ Convert to the 24 hour clock ➤ Convert from the 24 hour clock 		

	<ul style="list-style-type: none"> ➤ Range 3: ➤ <i>Beginning to understand that things might happen now, or another time, in routines</i> ➤ <i>Becoming familiar with patterns in daily routines</i> ➤ <i>Joins in and predicts what might happen next in a story or rhyme</i> ➤ Range 4: ➤ <i>Beginning to understand some talk about immediate past and future</i> ➤ <i>Beginning to anticipate times of the day such as mealtimes and home time</i> ➤ <i>Is interested in what happens next using the pattern of everyday routines</i> 				<ul style="list-style-type: none"> ➤ <i>Minutes and seconds</i> ➤ <i>Units of time</i> ➤ <i>Solve problems with time</i> 			
<p>Money Measurement</p>			<ul style="list-style-type: none"> ➤ <i>Unitising</i> ➤ <i>Recognise coins</i> ➤ <i>Recognise notes</i> ➤ <i>Count in coins</i> 	<ul style="list-style-type: none"> ➤ <i>Count money – pence</i> ➤ <i>Count money – pounds (notes and coins)</i> ➤ <i>Count money – pounds and pence</i> ➤ <i>Choose notes and coins</i> ➤ <i>Make the same amount</i> 	<ul style="list-style-type: none"> ➤ <i>Pounds and pence</i> ➤ <i>Convert pounds and pence</i> ➤ <i>Add money</i> ➤ <i>Subtract money</i> ➤ <i>Find change</i> 	<ul style="list-style-type: none"> ➤ <i>Write money using decimals</i> ➤ <i>Convert between pounds and pence</i> ➤ <i>Compare amounts of money</i> ➤ <i>Estimate with money</i> ➤ <i>Calculate with money</i> ➤ <i>Solve problems with money</i> 		

				<ul style="list-style-type: none"> ➤ Compare amounts of money ➤ Calculate with money ➤ Making a pound ➤ Find change ➤ Two-step problems 				
Shape Geometry	<ul style="list-style-type: none"> ➤ Explore differently sized and shaped objects ➤ Beginning to put objects of similar shape inside others and take them out again ➤ Experiences patterned objects and images Range 2: ➤ Stacks objects using flat surfaces ➤ Responds to changes of shape ➤ Attempts, sometimes successfully, to match shapes with spaces of inset puzzles Range 3: ➤ Pushes objects through different shaped holes and attempts to fit shapes into spaces on inset boards or puzzles 	<ul style="list-style-type: none"> ➤ Match objects ➤ Match pictures and objects ➤ Identify a set ➤ Sort objects to a type ➤ Exploring sorting techniques ➤ Create sorting rules ➤ Compare amounts ➤ Identify and name circles and triangles ➤ Compare circles and triangles ➤ Shapes in the environment ➤ Identify and name shapes with 4 sides ➤ Combine shapes with 4 sides ➤ My day and night ➤ Recognise and name 3-D shapes ➤ Find 2-D shapes within 3-D shapes ➤ Use 3-D shapes for tasks 	<ul style="list-style-type: none"> ➤ Recognise and name 3-D shapes ➤ Sort 3-D shapes ➤ Recognise and name 2-D shapes ➤ Sort 2-D shapes ➤ Patterns with 2-D and 3-D shapes 	<ul style="list-style-type: none"> ➤ Recognise 2-D and 3-D shapes ➤ Count sides on 2-D shapes ➤ Count vertices on 2-D shapes ➤ Draw 2-D shapes ➤ Lines of symmetry on shapes ➤ Use lines of symmetry to complete shapes ➤ Sort 2-D shapes ➤ Count faces on 3-D shapes ➤ Count edges on 3-D shapes ➤ Count vertices on 3-D shapes ➤ Sort 3-D shapes ➤ Make patterns with 2-D and 3-D shapes 	<ul style="list-style-type: none"> ➤ Turns and angles ➤ Right angles ➤ Compare angles ➤ Measure and draw accurately ➤ Horizontal and vertical ➤ Parallel and perpendicular ➤ Recognise and describe 2-D shapes ➤ Draw polygons ➤ Recognise and describe 3-D shapes ➤ Make 3-D shapes 	<ul style="list-style-type: none"> ➤ Understand angles as turns ➤ Identify angles ➤ Compare and order angles ➤ Triangles ➤ Quadrilaterals ➤ Polygons ➤ Lines of symmetry ➤ Complete a symmetric figure 	<ul style="list-style-type: none"> ➤ Understand and use degrees ➤ Classify angles ➤ Estimate angles ➤ Measure angles up to 180 ➤ Draw lines and angles accurately ➤ Calculate angles around a point ➤ Calculate angles on a straight line ➤ Lengths and angles in shapes ➤ Regular and irregular polygons ➤ 3-D shapes 	<ul style="list-style-type: none"> ➤ Measure and classify angles ➤ Calculate angles ➤ Vertically opposite angles ➤ Angles in a triangle ➤ Angles in a triangle – special cases ➤ Angles in a triangle – missing angles ➤ Angles in quadrilaterals ➤ Angles in polygons ➤ Circles ➤ Draw shapes accurately ➤ Nets of 3-D shapes

	<ul style="list-style-type: none"> ➤ Beginning to select a shape for specific space ➤ Enjoys using blocks to create their own simple structure or arrangement Range 4: ➤ Chooses puzzle pieces and tries to fit them in ➤ Recognises that two objects have the same shape ➤ Makes simple constructions 	<ul style="list-style-type: none"> ➤ 3-D shapes in the environment ➤ Identify more complex patterns ➤ Copy and continue patterns ➤ Patterns in the environment ➤ Select shapes for a purpose ➤ Rotate shapes ➤ Manipulate shapes ➤ Explain shape arrangements ➤ Compose shapes ➤ Decompose shapes ➤ Copy 2-D shape pictures 						
<p>Position and Direction Geometry</p>	<ul style="list-style-type: none"> ➤ Range 1: ➤ Developing awareness of their own bodies, that their body has different parts and where these are in relation to each other ➤ Explores space when they are free to move, roll and stretch Range 2: ➤ Explores space around them and engages with position and direction, such as pointing 	<ul style="list-style-type: none"> ➤ Describe position ➤ My day and night ➤ Identify units of repeating patterns ➤ Create own pattern rules ➤ Explore own pattern rules ➤ Replicate and build scenes and constructions ➤ Visualise from different positions ➤ Describe positions ➤ Explore mapping 	<ul style="list-style-type: none"> ➤ Describe turns ➤ Describe position – left and right ➤ Describe position – forwards and backwards ➤ Describe position – above and below ➤ Ordinal numbers 	<ul style="list-style-type: none"> ➤ Language of position ➤ Describe movement ➤ Describe turns ➤ Describe movement and turns ➤ Shape patterns with turns 		<ul style="list-style-type: none"> ➤ Describe position using coordinates ➤ Plot coordinates ➤ Draw 2-D shapes on a grid ➤ Translate on a grid ➤ Describe translation on a grid 	<ul style="list-style-type: none"> ➤ Read and plot coordinates ➤ Problem solving with coordinates ➤ Translation ➤ Translation with coordinates ➤ Lines of symmetry ➤ Reflection in horizontal and vertical lines 	<ul style="list-style-type: none"> ➤ The first quadrant ➤ Read and plot points in four quadrants ➤ Solve problems with coordinates ➤ Translations ➤ Reflections

	<p>to where they would like to go</p> <p>Range 3:</p> <ul style="list-style-type: none"> ➤ Enjoys filling and emptying containers ➤ Investigates fitting themselves inside and moving through spaces <p>Range 4:</p> <ul style="list-style-type: none"> ➤ Moves their body and toys around objects and explores fitting into spaces ➤ Begins to remember their way around a familiar environment ➤ Responds to some spatial and positional language ➤ Explore how things look from a different viewpoint, including things near or far away ➤ Joins in and anticipates repeated sound and action patterns 	<ul style="list-style-type: none"> ➤ Represent maps with models ➤ Create own maps from familiar places ➤ Create own maps from story situations ➤ Deepen understanding ➤ Pattern and relationships 						
<p>Statistics</p>				<ul style="list-style-type: none"> ➤ Make tally charts ➤ Tables ➤ Block diagrams ➤ Draw pictograms (1-1) 	<ul style="list-style-type: none"> ➤ Interpret pictograms ➤ Draw pictograms ➤ Interpret bar charts 	<ul style="list-style-type: none"> ➤ Interpret charts ➤ Comparison, sum and difference ➤ Interpret line graphs ➤ Draw line graphs 	<ul style="list-style-type: none"> ➤ Draw line graphs ➤ Read and interpret line graphs 	<ul style="list-style-type: none"> ➤ Line graphs ➤ Dual bar charts ➤ Read and interpret pie charts

				<ul style="list-style-type: none">➤ Interpret pictograms (1-1)➤ Draw pictograms (2, 5 and 10)➤ Interpret pictograms (2, 5 and 10)	<ul style="list-style-type: none">➤ Draw bar charts➤ Collect and represent data➤ Two-way tables		<ul style="list-style-type: none">➤ Read and interpret tables➤ Two-way tables➤ Read and interpret timetables	<ul style="list-style-type: none">➤ Pie charts with percentages➤ Draw pie charts➤ The mean
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