



Mathematical Skills Progression In The New Curriculum						
	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
<b>Calculation</b>	<ul style="list-style-type: none"> <li>-Count to and across 100 forwards and backwards.</li> <li>-Count to and across 100 from any given number.</li> <li>-Count, read and write numbers to 100 in numerals.</li> <li>-Count in multiples of 2.</li> <li>-Count in multiples of 5.</li> <li>-Count in multiples of 10.</li> <li>-Identify a number that is one more or one less.</li> <li>-Read and write numbers from 1-20 in numerals.</li> <li>-Read and write numbers from 1-20 in words.</li> <li>-Use the language equal to, more than, less than, fewer, least, most etc.</li> <li>-Know and use addition number bonds to 20.</li> <li>-Know and use subtraction bonds within 20.</li> <li>-Add and subtract one-digit and two-digit numbers to 20, including 0.</li> <li>-Solve one step addition and subtraction problems.</li> <li>-Solve one step multiplication and division problems.</li> </ul>	<ul style="list-style-type: none"> <li>-Count in steps of 2 from 0.</li> <li>-Count in steps of 3 from 0.</li> <li>-Count in steps of 5 from 0.</li> <li>-Count forwards and backwards in steps of 10 from any number.</li> <li>-Recognise the place value of each digit in a two-digit number.</li> <li>-Compare and order numbers from 0 to 100 using &lt; &gt; and =</li> <li>-Read numbers to at least 100 in numerals.</li> <li>-Read numbers to at least 100 in words.</li> <li>-Use place value and number facts to solve problems.</li> <li>-Solve problems using addition and subtraction.</li> <li>-Recall addition facts to 20 fluently.</li> <li>-Recall subtraction facts within 20 fluently.</li> <li>Use recall of number bonds to derive related facts to 100.</li> <li>-Add and subtract two-digit numbers and 1's.</li> <li>-Add and subtract two-digit numbers and 10's.</li> <li>-Add and subtract two two-digit numbers.</li> <li>-Add 3 one-digit numbers.</li> </ul>	<ul style="list-style-type: none"> <li>-Recognise the place value of each digit in a 3 digit number (hundred, tens and units).</li> <li>-Compare and order numbers to 1000.</li> <li>-Read and write numbers to 1000 in numerals.</li> <li>-Read and write numbers to 1000 in words.</li> <li>-Add and subtract 3 digit numbers and 1's mentally.</li> <li>-Add and subtract 3 digit numbers and 10's mentally.</li> <li>-Add and subtract 3 digit numbers and 100's mentally.</li> <li>-Add and subtract three-digit numbers using a formal method.</li> <li>-Solve problems including those with missing numbers.</li> <li>-Recall and use multiplication and division facts for the 3x, 4x and 8x multiplication tables.</li> <li>-Write and calculate using multiplication statements.</li> <li>-Write and calculate using division statements.</li> </ul>	<ul style="list-style-type: none"> <li>-Count in multiples of 6, 7, 8, 9, 25 and 100.</li> <li>-Find 1000 more or less than a given number.</li> <li>-Count backwards through 0 to negative numbers.</li> <li>-Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and units)</li> <li>-Order and compare numbers beyond 1000.</li> <li>-Read Roman numerals to 100 (I to C).</li> <li>-Round numbers to the nearest 10, 100 or 1000.</li> <li>-Add and subtract four-digit numbers using a formal written method.</li> <li>-Solve 2-step addition and subtraction problems.</li> <li>-Recall multiplication and division facts top 12x12.</li> <li>Multiply and divide mentally (including by 0 and 1)</li> <li>-Recognise and use factor pairs (e.g. know all of the factors of 12; 1&amp;12, 6 &amp; 2, 3&amp;4)</li> <li>-Multiply a 2-digit or a 3-digit number by 1-digit using a formal written method.</li> <li>-Solve problems involving multiplying and dividing.</li> </ul>	<ul style="list-style-type: none"> <li>-Read, write, order and compare numbers to at least 1 000 000 and know the value of each digit.</li> <li>-Count forwards and backwards in steps of powers of 10 to 1 000 000</li> <li>-Interpret negative numbers.</li> <li>-Count forwards and backwards in positive and negative whole numbers through 0.</li> <li>-Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 or 100 000.</li> <li>-Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.</li> <li>-Add and subtract whole numbers with more than 4-digits.</li> <li>-Add and subtract with large numbers mentally.</li> <li>-Solve addition and subtraction multi-step problems in context.</li> <li>-Identify multiples and factors and find all factor pairs of a number as well as factors common to two numbers.</li> <li>- Know prime numbers and recall them to 100.</li> <li>-Multiply numbers up to 4-digits by a 1-digit or 2-digit number.</li> </ul>	<ul style="list-style-type: none"> <li>-Read, write order and compare numbers to 10 000 000 and know the value of each digit.</li> <li>-Round whole numbers to any degree e.g. nearest 10, 100 etc</li> <li>-Use negative numbers in context (e.g. temperature) and calculate across 0.</li> <li>-Solve number and practical problems.</li> <li>-Multiply multi-digit numbers up to 4 digits by a two-digit whole number using a formal method.</li> <li>-When dividing, interpret the remainders as fractions and remaining parts of a whole.</li> <li>-Perform mental calculations with mixed operations and large numbers.</li> <li>-Identify common factors, multiples and prime numbers.</li> <li>-Solve addition and subtraction multi-step problems.</li> <li>-Solve division and multiplication multi-step problems.</li> <li>-Solve problems using any operation or combination of operations.</li> </ul>



		<ul style="list-style-type: none"> <li>-Know that addition can be done in any order.</li> <li>-Recognise and use the inverse relationship between addition and subtraction and use this to solve missing number problems.</li> <li>-Recall and use multiplication and division facts for the 2x, 5x and 10x multiplication tables.</li> <li>-Recognise odd and even numbers.</li> <li>-Calculate using multiplication, division and the equals sign.</li> <li>-Solve problems using multiplication and division.</li> </ul>			<ul style="list-style-type: none"> <li>- Divide numbers up to 4-digits by a 1-digit or 2-digit number.</li> <li>-Multiply and divide whole numbers and decimals by 10, 100 and 1000.</li> <li>-Recognise and use squared and cubed numbers and notation <sup>3</sup> and <sup>2</sup>.</li> <li>-Solve multiplication and division problems including factors, multiples, squares and cubes.</li> <li>-Solve addition, subtraction, multiplication and division problems using a combination of operations.</li> </ul>	
<b>Fractions</b>	<ul style="list-style-type: none"> <li>-Recognise and name <math>\frac{1}{2}</math> as one of two equal parts of an object, a shape or a quantity.</li> <li>-Recognise and name <math>\frac{1}{4}</math> as one of four equal parts of an object, a shape or a quantity.</li> </ul>	<ul style="list-style-type: none"> <li>-Recognise, find and name <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math>, <math>\frac{1}{2}</math> and <math>\frac{3}{4}</math> of a length, shape, object or quantity.</li> <li>-Find and write a fraction of a number e.g. <math>\frac{1}{2}</math> of 6 =3</li> </ul>	<ul style="list-style-type: none"> <li>-Count up and down in 10ths.</li> <li>-Know that 10ths come from something being divided into 10 equal parts.</li> <li>-Find a fraction of a set of objects.</li> <li>-Use fractions as numbers.</li> <li>-Solve problems with fractions.</li> <li>-Add and subtract fractions with the same denominator within a whole e.g. <math>\frac{5}{7} + \frac{1}{7} = \frac{6}{7}</math></li> <li>-Compare and order fractions with the same denominator.</li> </ul>	<ul style="list-style-type: none"> <li>-Recognise equivalent fractions.</li> <li>-Count up or down in 100ths and know that you get 100ths by dividing something by 100.</li> <li>-Solve problems with fractions.</li> <li>-Add and subtract fractions with the same denominator e.g. <math>\frac{3}{5} + \frac{1}{5} = \frac{4}{5}</math></li> <li>-Recognise decimal equivalents of any number of tenths or hundredths.</li> <li>-Recognise and write decimal equivalents to <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math>, <math>\frac{3}{4}</math>.</li> <li>-Divide any number by 10 or 100 and describe the effect.</li> </ul>	<ul style="list-style-type: none"> <li>-Compare and order fractions whose denominators are all multiples of the same number e.g. <math>\frac{1}{8}</math>, <math>\frac{2}{16}</math> etc</li> <li>-Identify, name and write equivalent fractions.</li> <li>-Recognise mixed numbers and improper fractions and convert from one to another <math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5}</math> or <math>1 \frac{1}{5}</math></li> <li>-Add and subtract fractions with the same denominator.</li> <li>-Recognise decimal / fraction equivalents.</li> <li>-Multiply proper fractions and mixed numbers by whole numbers.</li> <li>-Read and write decimal numbers as fractions.</li> </ul>	<ul style="list-style-type: none"> <li>-Use common factors to simplify fractions which have common multiples.</li> <li>-Compare and order fractions which are greater than 1.</li> <li>-Add and subtract fractions with different denominators and mixed numbers.</li> <li>-Multiply simple pairs of proper fractions writing the answer in the simplest form (e.g. <math>\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}</math>)</li> <li>-Identify the value of each digit in a decimal number with up to 3 decimal places.</li> <li>-Multiply and divide numbers by 10, 100 or</li> </ul>



				<ul style="list-style-type: none"> <li>-Identify the value of digits e.g. units, 10ths or 100ths.</li> <li>-Round decimals to one decimal place or to the nearest whole number.</li> <li>-Compare numbers with the same number of decimal places to 2 decimal places.</li> <li>-Solve measures and money problems including fractions and decimals.</li> </ul>	<ul style="list-style-type: none"> <li>-Recognise and use 1000ths and relate these to 10ths and 100<sup>th</sup> and decimal equivalents.</li> <li>-Round decimals to 2 decimal places to the nearest whole number and to 1 decimal place.</li> <li>-Read, write, order and compare numbers to 3 decimal places.</li> <li>-Recognise the % symbol and know that it means 'parts per hundred'.</li> <li>-Write percentages as fractions with 100 as the denominator.</li> <li>-Write percentages as decimals.</li> <li>-Solve problems which require knowing percentage, fraction and decimal equivalents.</li> </ul>	<ul style="list-style-type: none"> <li>1000 giving an answer to 3 decimal places.</li> <li>-Divide proper fractions by a whole (e.g. <math>1/3 \div 2 = 1/6</math>)</li> <li>-Calculate decimal equivalents e.g. <math>3/8 = 0.375</math></li> <li>-Multiply 1-digit numbers with 2 decimal places by whole numbers.</li> <li>-Use written division methods where the answer has 2 decimal places.</li> <li>-Solve division problems where the answer needs to be rounded.</li> </ul>
<b>Measurement</b>	<ul style="list-style-type: none"> <li>-Compare lengths.</li> <li>-Compare heights.</li> <li>-Compare weights.</li> <li>-Compare capacities.</li> <li>-Compare periods of time.</li> <li>-Sequence events in chronological order (before, after, next, first, today, yesterday, tomorrow, morning, evening, afternoon)</li> <li>-Use language relating to dates, weeks, months, years etc.</li> <li>-Tell the time to the hour.</li> <li>-Tell the time to half past the hour.</li> </ul>	<ul style="list-style-type: none"> <li>-Choose and use appropriate standard units to measure.</li> <li>-Compare and order lengths, weights and capacities.</li> <li>-Record results of comparisons using &lt; &gt; and =</li> <li>-Use symbols for pounds and pence (£ and p)</li> <li>-Combine amounts to make values.</li> <li>-Find combinations of coins that equal the same amount.</li> <li>-Add and subtract money and give change.</li> </ul>	<ul style="list-style-type: none"> <li>-Measure, compare, add and subtract lengths.</li> <li>--Measure, compare, add and subtract masses.</li> <li>--Measure, compare, add and subtract capacities.</li> <li>-Measure the perimeter of simple 2D shapes.</li> <li>-Add and subtract amounts of money and give change using £ and p.</li> <li>-Tell and write the time on analogue clocks.</li> <li>-Read Roman numerals from I to XII.</li> <li>-Read and tell the time on 12hr and 24hr clocks.</li> </ul>	<ul style="list-style-type: none"> <li>-Convert between different units of measurement e.g. Km to m</li> <li>-Measure and calculate the perimeter of a rectilinear shape in cm and m.</li> <li>-Find the area of a shape by counting squares.</li> <li>-Calculate with measures including £ and p.</li> <li>-Read, write and convert time between analogue and digital clocks, 12 and 24 hour time.</li> <li>-Solve problems which require conversions between measurements.</li> </ul>	<ul style="list-style-type: none"> <li>-Convert between measurements e.g. Km to m etc</li> <li>-Understand and use approximate equivalences between metric and imperial units e.g. inches, pounds and pints.</li> <li>-Calculate the perimeter of shapes in cm and m.</li> <li>-Calculate the area of rectangles using a formula and <math>cm^2 / m^2</math>.</li> <li>-Estimate volume and capacity.</li> <li>-Solve problems converting between units of time.</li> </ul>	<ul style="list-style-type: none"> <li>-Solve problems including the calculation and conversion of units of measure (including using decimals to 3 decimal places)</li> <li>-Use, read, write and convert between standard units of length, mass, volume and time etc.</li> <li>-Convert between miles and Km</li> <li>-Recognise that shapes with the same areas can have different perimeters and vice versa.</li> </ul>



	<ul style="list-style-type: none"> <li>-Recognise the value of different coins and notes.</li> </ul>	<ul style="list-style-type: none"> <li>-Compare time intervals and discuss the differences.</li> <li>-Tell the time to 5 minute intervals, including <math>\frac{1}{4}</math> past the hour and <math>\frac{1}{4}</math> to the hour.</li> <li>-Know the number of minutes in an hour / hours in a day etc.</li> </ul>	<ul style="list-style-type: none"> <li>-Compare periods of time (seconds, minutes, hours etc)</li> <li>-Know the number of seconds in a minute.</li> <li>-Know the number of days in each month.</li> <li>-Know the number of days in a year / leap year.</li> <li>-Compare the durations of events and tasks.</li> </ul>		<ul style="list-style-type: none"> <li>-Use all four operations to solve problems including measures.</li> </ul>	<ul style="list-style-type: none"> <li>-Recognise where it is possible to use formula to calculate area and volume.</li> <li>-Calculate the area of a parallelogram and a triangle.</li> <li>-Calculate, estimate and compare the volumes of cubes, cuboids etc using <math>\text{cm}^3</math></li> </ul>
<b>Shape</b>	<ul style="list-style-type: none"> <li>-Recognise and name 2D shapes (rectangles, squares, circles and triangles)</li> <li>-Recognise and name 3D shapes (cuboids, cubes, pyramids, spheres)</li> <li>-Describe the positions, directions and movements of shapes.</li> </ul>	<ul style="list-style-type: none"> <li>-Describe properties of 2D shapes including the number of sides / lines of symmetry they have.</li> <li>-Describe the properties of 3D shapes including the number of edges, vertices and faces.</li> <li>-Identify 2D shapes on the surfaces of 3D shapes.</li> <li>-Recognise patterns and sequences.</li> <li>-Recognise positions and movements including clockwise and anticlockwise.</li> </ul>	<ul style="list-style-type: none"> <li>-Draw 2D shapes.</li> <li>-Recognise 3D shapes around us and in different orientations and describe them.</li> <li>-Recognise angles in a shape.</li> <li>-Recognise angles in a degree of turn.</li> <li>-Identify right angles and how they combine to make a turn.</li> <li>-Identify horizontal and vertical lines.</li> <li>-Identify pairs of perpendicular lines (those that meet at a right angle)</li> <li>-Identify pairs of parallel lines.</li> </ul>	<ul style="list-style-type: none"> <li>-Compare and classify shapes based on their properties and size.</li> <li>-Identify acute and obtuse angles and compare.</li> <li>-Identify lines of symmetry in 2D shapes in different orientations.</li> <li>-Describe positions of 2D shapes as co-ordinates in the 1<sup>st</sup> quadrant.</li> <li>-Describe movements of shapes on grids as translations.</li> </ul>	<ul style="list-style-type: none"> <li>-Identify 3D shapes from 2D representations.</li> <li>-Know that angles are measured in degrees.</li> <li>-Estimate and compare angles.</li> <li>-Draw angles and measure them in degrees.</li> <li>-Identify angles at a point and know that they will equal <math>360^\circ</math>.</li> <li>- Identify angles on a straight line and know that they will equal <math>180^\circ</math></li> <li>-Identify angles that are other multiples of <math>90^\circ</math>.</li> <li>-Use the properties of rectangles to deduce related facts and find missing lengths and angles.</li> <li>-Distinguish between regular and irregular polygons.</li> <li>-Identify, describe and represent the position of a shape when it has been reflected and translated.</li> <li>-Use co-ordinates to describe the position of a</li> </ul>	<ul style="list-style-type: none"> <li>-Recognise, describe and build 3D shapes including nets.</li> <li>-Compare and classify geometric shapes based on their properties and sizes and find unknown angles in triangles, quadrilaterals and regular polygons.</li> <li>-Illustrate and name parts of a circle inc radius, diameter and circumference.</li> <li>-Know that the diameter is twice the radius.</li> <li>-Recognise where angles meet at a point, straight line or are vertically opposite.</li> <li>-Find values of missing angles.</li> <li>-Describe positions and co-ordinates on a 4 quadrant grid.</li> <li>-Translate simple shapes on a grid.</li> <li>-Reflect shapes in an axis.</li> </ul>



					shape on a grid with 4 quadrants.	
<b>Ratio</b>			-Solve problems, including missing number problems, involving multiplication and division, including: -positive integer scaling -correspondence problems (e.g. in which n objects are connected to m objects)	-Solve problems involving multiplying and adding including using: -integer scaling problems -harder correspondence problems such as n objects are connected to m objects	-Understand simple ratio -Solve simple problems involving ratio and direct proportion e.g. -begin to use multiplication rather than trial and improvement to solve ratio problems - Solve problems involving multiplication and division including scaling by simple fractions and problems using simple rates	-Solve problems including relative quantities where multiplication and division can be used to find missing values. -Solve problems involving the calculation of percentages of measures, numbers and quantities. -Solve problems with shapes where the scale factor is known or can be found. -Solve problems involving the unequal sharing of groups using the knowledge of factors and multiples.
<b>Algebra</b>		-Recognise patterns and sequences.				-Use simple formulae. -Generate and describe number sequences. -Show missing number problems algebraically. -Find numbers that satisfy an equation with 2 unknowns e.g. $p+q=1000$ where p is 150 greater than q