

# Federation of Golden Flatts and Lynnfield Primary Schools

## Maths Medium-Term Plan: Year 5

Autumn Term



	Place Value	Negative Numbers	Position & Direction	Addition & Subtraction	Multiplication & Division	Perimeter & Area	Assessment
	3 weeks	2 weeks	2 weeks	2 weeks	3 weeks	2 weeks	1 week
National Curriculum	<ul style="list-style-type: none"> <li>Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit</li> <li>Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000</li> <li>Solve number problems and practical problems involving the above</li> </ul>	<ul style="list-style-type: none"> <li>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</li> </ul>	<ul style="list-style-type: none"> <li>Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed</li> </ul>	<ul style="list-style-type: none"> <li>Add and subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction)</li> <li>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</li> <li>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</li> </ul>	<ul style="list-style-type: none"> <li>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000</li> <li>Multiply numbers up to four digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2-digit numbers</li> <li>Divide up to four digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context</li> <li>Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes</li> </ul>	<ul style="list-style-type: none"> <li>Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres</li> <li>Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>), and estimate the area of irregular shapes</li> </ul>	<ul style="list-style-type: none"> <li>Test to be made by Maths lead to match what has been taught – do <b>not</b> just use WR End of Term Tests</li> <li>Day 1 do arithmetic test</li> <li>Day 2 go over and unpick the arithmetic test with loads of discussion – this <b>must</b> be given proper time</li> <li>Days 3 do reasoning test</li> <li>Day 4 go over and unpick the reasoning test with loads of discussion – this <b>must</b> be given proper time</li> </ul>
Small Steps	<ul style="list-style-type: none"> <li>Represent and know value of digits to 7-digit</li> <li>Partition numbers to 7-digit</li> <li>1, 10, 100, 1000, 10,000, 100,000 more</li> <li>1, 10, 100, 1000, 10,000, 100,000 more</li> <li>Compare two numbers using &lt; &gt; = to 7-digit</li> <li>Order sets of numbers to 7-digit</li> <li>Round 4-digit numbers to nearest 10, 100, 1000</li> <li>Round to nearest 10, 100, 1000 within 7-digit</li> </ul>	<ul style="list-style-type: none"> <li>Understand through ordering negative numbers including number line</li> <li>Count through zero in ones and other multiples</li> <li>Increases and decreases through zero</li> <li>Find the difference</li> </ul>	<ul style="list-style-type: none"> <li>Read and plot coordinates in the first quadrant</li> <li>Translate a shape including coordinates</li> <li>Describe a translation including coordinates</li> <li>Lines of symmetry</li> <li>Reflections including coordinates</li> </ul>	<ul style="list-style-type: none"> <li>Column addition of 4-digit numbers no bridging then bridging including VF</li> <li>Column addition of 5-digit or more numbers with bridging including VF</li> <li>Column addition of mixed PV numbers with bridging including VF</li> <li>Column subtract of 4-digit numbers no exchanging then exchanging including VF</li> <li>Column subtract of 5-digit or more numbers with exchanging including VF</li> <li>Column subtract of mixed PV numbers with exchanging including VF</li> <li>Estimate/approximate to check</li> <li>Inverse to check</li> </ul>	<ul style="list-style-type: none"> <li>Multiply by 10, 100, 1000</li> <li>Divide by 10, 100, 1000</li> <li>Mixed multiply and divide by 10, 100, 1000</li> <li>Multiply 4 x 1 short</li> <li>Multiply 2 x 2 long</li> <li>Multiply 3 x 2 long</li> <li>Multiply 4 x 2 long</li> <li>Divide 4 by 1 using short no remainders at all including within</li> <li>Divide 4 by 1 using short remainder only at end</li> <li>Divide 4 by 1 using short remainder throughout</li> </ul>	<ul style="list-style-type: none"> <li>Perimeter of rectangles</li> <li>Perimeter of compound rectilinear shapes</li> <li>Perimeter of polygons</li> <li>Area of rectangles</li> <li>Area of compound shapes</li> </ul>	

# Federation of Golden Flatts and Lynnfield Primary Schools

## Maths Medium-Term Plan: Year 5

Spring Term



	Volume	Fractions	Statistics	Assessment
	1 week	7 weeks	2 weeks	1 week
National Curriculum	<ul style="list-style-type: none"> <li>Estimate volume [for example, using 1 cm<sup>3</sup> blocks to build cuboids (including cubes)] and capacity</li> <li>Estimate volume and capacity [for example, using water]</li> </ul>	<ul style="list-style-type: none"> <li>Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers</li> <li>Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes</li> <li>Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers</li> <li>Establish whether a number up to 100 is prime and recall prime numbers up to 1</li> <li>Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)</li> <li>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</li> <li>Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements <math>&gt; 1</math> as a mixed number</li> <li>Compare and order fractions whose denominators are all multiples of the same number</li> <li>Add and subtract fractions with the same denominator, and denominators that are multiples of the same number</li> <li>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams</li> <li>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 (Y4)</li> </ul>	<ul style="list-style-type: none"> <li>Complete, read and interpret information in tables, including timetables</li> <li>Solve comparison, sum and difference problems using information presented in a line graph</li> </ul>	<ul style="list-style-type: none"> <li>Test to be made by Maths lead to match what has been taught – do <b>not</b> just use WR End of Term Tests</li> <li>Day 1 do arithmetic test</li> <li>Day 2 go over and unpick the arithmetic test with loads of discussion – this <b>must</b> be given proper time</li> <li>Days 3 do reasoning test</li> <li>Day 4 go over and unpick the reasoning test with loads of discussion – this <b>must</b> be given proper time</li> </ul>
Small Steps	<ul style="list-style-type: none"> <li>Count volume using cubes</li> <li>Compare volumes</li> <li>Estimate volume</li> <li>Estimate capacity</li> </ul>	<ul style="list-style-type: none"> <li>Multiples then common multiples</li> <li>factors</li> <li>Common factors</li> <li>Prime numbers</li> <li>Square numbers</li> <li>Cube numbers</li> <li>Find fractions equivalent to a unit fraction – use as fractions reminder session</li> <li>Find fractions equivalent to a non-unit fraction</li> <li>Convert improper to mixed</li> <li>Convert mixed to improper</li> <li>Compare and order fractions less than one</li> <li>Compare and order fractions more than one</li> <li>Add and subtract fractions with same denominator (mixed lesson as Y4 revision)</li> <li>Add fractions with diff denom within 1</li> <li>Add fractions with diff denom beyond 1</li> <li>Add a fraction to a mixed number</li> <li>Add 2 mixed numbers</li> <li>Subtract fractions with diff denom</li> <li>Subtract fraction from mixed</li> <li>Subtract two mixed numbers</li> <li>Multiply fractions by integers</li> <li>Multiply a mixed number by an integer</li> <li>Fractions of amounts – 2 lessons</li> </ul>	<ul style="list-style-type: none"> <li>Read and interpret tables</li> <li>Read and interpret two way tables</li> <li>Read and interpret timetables</li> <li>Draw line graphs</li> <li>Read and interpret line graphs</li> </ul>	

# Federation of Golden Flatts and Lynnfield Primary Schools

## Maths Medium-Term Plan: Year 5

Summer Term



	Decimals & Percentages	Measurement	Properties of Shape	Time	Assessment
	5 weeks	2 weeks	3 weeks	1 week	1 week
National Curriculum	<ul style="list-style-type: none"> <li>Read, write, order and compare numbers with up to 3 decimal places</li> <li>Read and write decimal numbers as fractions</li> <li>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</li> <li>Solve problems which require knowing percentage and decimal equivalents of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{5}</math>, <math>\frac{2}{5}</math>, <math>\frac{4}{5}</math> and those fractions with a denominator of a multiple of 10 or 25</li> <li>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</li> <li>Solve problems involving numbers up to 3 decimal places</li> <li>Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place</li> <li>Recognise the per cent symbol (%) and understand that per cent relates to "number of parts per 100", and write percentages as a fraction with denominator 100, and as a decimal fraction</li> </ul>	<ul style="list-style-type: none"> <li>Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; millimetre and millimetre; gram and kilogram; litre and millilitre]</li> <li>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints</li> </ul>	<ul style="list-style-type: none"> <li>Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</li> <li>Draw given angles, and measure them in degrees (<math>^{\circ}</math>)</li> <li>Identify angles at a point and 1 whole turn (total <math>360^{\circ}</math>)</li> <li>Identify: angles at a point and 1 whole turn (total <math>360^{\circ}</math>); angles at a point on a straight line and half a turn (total <math>180^{\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 based on reasoning about equal sides and angles</li> <li>Identify 3-D shapes, including cubes and other cuboids, from 2-D representations</li> </ul>	<ul style="list-style-type: none"> <li>Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals</li> <li>Solve problems involving converting between units of time</li> <li>Convert units of time</li> <li>Calculate with timetables</li> <li>Roman Numerals to 1000</li> <li>Calculate time durations</li> </ul>	<ul style="list-style-type: none"> <li>Test to be made by Maths lead to match what has been taught – do <b>not</b> just use WR End of Term Tests</li> <li>Day 1 do arithmetic test</li> <li>Day 2 go over and unpick the arithmetic test with loads of discussion – this <b>must</b> be given proper time</li> <li>Days 3 do reasoning test</li> <li>Day 4 go over and unpick the reasoning test with loads of discussion – this <b>must</b> be given proper time</li> </ul>
Small Steps	<ul style="list-style-type: none"> <li>Decimals to 2dp</li> <li>Equivalent fractions and decimals tenths</li> <li>Equivalent fractions and decimals hundredths</li> <li>Thousandths as fractions and decimals</li> <li>Order and compare decimals same amount of PV places</li> <li>Order and compare decimals any amount of PV places</li> <li>Round decimals to wholes and tenths</li> <li>Understand percentages &amp; Percentages as fractions</li> <li>Percentages as decimals</li> <li>FDP Equivalence</li> <li>Multiply decimals by 10, 100, 1000</li> <li>Divide decimals by 10, 100, 1000</li> <li>Add decimals including with different PV</li> <li>Subtract Decimals with different PV</li> </ul>	<ul style="list-style-type: none"> <li>Kilograms and kilometres</li> <li>Millimetres and millilitres</li> <li>Converting units</li> <li>Units of time</li> <li>Converting with imperial units</li> </ul>	<ul style="list-style-type: none"> <li>Degrees and classify angles</li> <li>Estimate and measure angles up to 180</li> <li>Draw lines accurately – teacher assess 22</li> <li>Calculate angles within right angles</li> <li>Calculate angles on a straight line</li> <li>Calculate angles around a point</li> <li>Lengths and angles in shapes</li> <li>Regular and irregular polygons – teacher assess 21</li> <li>3d shapes</li> </ul>		