

## Year 5 – Spring Term

Some units such as Properties of Number and Area and Volume are new to this term; other units have some new elements but generally will offer children the chance to review steps covered in the Autumn term and to apply these skills at an increasingly challenging level, incorporating more opportunities for the children to solve problems, investigate, hypothesise, explain and reason about Maths

Unit 1	Unit 2:	Unit 3:	Unit 4:
Place Value - 8 lessons	Addition/subtraction – 7 lessons	Multiplication/division – 8 lessons	Properties of number – 6 lessons
<ul style="list-style-type: none"> <li>Read and write numbers to one million</li> <li>Partition numbers to a million</li> <li>Mentally add and subtract powers of 10 and multiples of them</li> <li>Round numbers to the nearest 10, 100, 1000, 10,000, 100,000</li> <li>Compare and order values including whole, decimal and negative numbers</li> <li>Find the difference between positive and negative numbers</li> <li>Solve problems with negative numbers in real-life contexts</li> <li>Interpret Roman numerals beyond 1000</li> </ul>	<ul style="list-style-type: none"> <li>add and subtract numbers with more than four digits</li> <li>add and subtract decimal numbers with up to 2 decimal places</li> <li>use the inverse operation to check answers</li> <li>use place value to identify the relationship between calculations .</li> <li>Use relationship between addition and subtraction to work out missing numbers</li> <li>use mental strategies to add and subtract numbers</li> </ul>	<ul style="list-style-type: none"> <li>understand the effect when multiplying and dividing by powers of 10</li> <li>use knowledge of the effect of multiplying and dividing by powers of 10 when multiplying and dividing by multiples of 10</li> <li>use a formal written method to multiply number with up to 4-digits by a 1-digit number</li> <li>use a formal written method to multiply a 2 or 3-digit number by a 2-digit number</li> <li>use short division to divide numbers, with exchanges</li> <li>use short division to divide numbers with remainders identify which operation is needed in order to solve multiplication and division problems</li> <li>use both formal written methods and mental strategies to solve multiplication problems</li> <li>make decisions about the most efficient methods for division in a range of contexts</li> <li>Use rounding to check validity of answers</li> </ul>	<ul style="list-style-type: none"> <li>understand and use the word multiple</li> <li>identify common multiples</li> <li>understand and use the word factor</li> <li>identify factors common to pairs of numbers</li> <li>understand and use the term prime number</li> <li>understand and use the term square number</li> <li>understand and use the term cube number</li> </ul>

Unit 5	Unit 6:	Unit 7:
Fractions/decimals/percentage - 11 lessons	Shape, space and position 10 lessons	Measure – area/volume 5 lessons
<ul style="list-style-type: none"> <li>• identify and reason with equivalent fractions</li> <li>• convert between improper fractions and mixed numbers</li> <li>• compare, add and subtract proper fractions with and then without common denominator</li> <li>• compare, add and subtract fractions and mixed numbers</li> <li>• multiply non-unit fractions by an integer and multiply mixed numbers by integers</li> <li>• calculate unit and non-unit fractions of a quantity</li> <li>• use a fraction of an amount to find the whole</li> <li>• recognise that a fraction of an integer is the same as the fraction multiplied by the integer</li> <li>• explore equivalent fractions and decimals of tenths, hundredths and thousandths</li> <li>• know equivalent fractions and decimals for halves, quarters, fifths and tenths</li> <li>• add and subtract numbers with up to 3 decimal places within 1</li> <li>• find decimal numbers that add to one whole</li> <li>• use efficient strategies to solve addition and subtraction problems, involving decimals</li> <li>• complete number sequences involving decimal numbers up to 2 decimal places</li> <li>• Recognise % symbol and explain as a fraction with denominator 100 (parts out of 100)</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> </ul>	<ul style="list-style-type: none"> <li>• understand that degrees is the unit of measure for turn</li> <li>• classify and describe acute, obtuse, reflex and right angles</li> <li>• use knowledge of right angles to estimate the size of other angles</li> <li>• use a protractor to measure acute and obtuse angles</li> <li>• use a protractor and ruler to draw lines and angles accurately</li> <li>• calculate the size of an unknown angle at a point</li> <li>• calculate the size of an unknown angle on a straight line</li> <li>• use given information to calculate missing lengths and angles in shapes</li> <li>• identify regular and irregular polygons</li> <li>• identify 3D shapes and describe their properties, including compound 3D shapes</li> <li>• read and plot coordinates in the first quadrant</li> <li>• solve problems involving coordinates</li> <li>• translate shapes in the first quadrant</li> <li>• translate points described by coordinates in the first quadrant</li> <li>• identify lines of symmetry on different shapes</li> <li>• reflect shapes from horizontal and vertical lines</li> </ul>	<ul style="list-style-type: none"> <li>• work out the area of a rectangle from given measures in square units</li> <li>• calculate the area of rectilinear shapes from given measures</li> <li>• estimate the area of non-rectilinear shapes by counting squares</li> <li>• explain what cube numbers</li> <li>• measure volume using cubes</li> <li>• solve problems involving volume</li> </ul>