

## Key Learning in Mathematics at Half Acres Primary School – Year 4

Number - number and place value	Number - addition and subtraction	Number - multiplication and division
<ul style="list-style-type: none"> <li>• count in multiples of 6, 7, 9, 25 and 1000</li> <li>• find 1000 more or less than a given number</li> <li>• count backwards through zero to include negative numbers</li> <li>• recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>• order and compare numbers beyond 1000</li> <li>• identify, represent and estimate numbers using different representations</li> <li>• round any number to the nearest 10, 100 or 1000</li> <li>• solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> <li>• read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value</li> </ul>	<ul style="list-style-type: none"> <li>• add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</li> <li>• estimate and use inverse operations to check answers to a calculation</li> <li>• solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</li> </ul> <p><b>Geometry - properties of shapes</b></p> <ul style="list-style-type: none"> <li>• compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> <li>• identify acute and obtuse angles and compare and order angles up to two right angles by size</li> <li>• identify lines of symmetry in 2-D shapes presented in different orientations</li> <li>• complete a simple symmetric figure with respect to a specific line of symmetry</li> </ul>	<ul style="list-style-type: none"> <li>• recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>• 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</li> <li>• recognise and use factor pairs and commutativity in mental calculations</li> <li>• multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>• solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects</li> </ul> <p><b>Measurement</b></p> <ul style="list-style-type: none"> <li>• convert between different units of measure [for example, kilometre to metre; hour to minute]</li> <li>• measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>• find the area of rectilinear shapes by counting squares</li> <li>• estimate, compare and calculate different measures, including money in pounds and pence</li> <li>• read, write and convert time between analogue and digital 12- and 24-hour clocks</li> <li>• solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days</li> </ul>
<p><b>Number - fractions (including decimals)</b></p> <ul style="list-style-type: none"> <li>• recognise and show, using diagrams, families of common equivalent fractions</li> <li>• count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten</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</li> <li>• add and subtract fractions with the same denominator</li> <li>• recognise and write 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>• 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 ones, tenths and hundredths</li> <li>• round decimals with one decimal place to the nearest whole number</li> <li>• compare numbers with the same number of decimal places up to two decimal places</li> <li>• solve simple measure and money problems involving fractions and decimals to two decimal places</li> </ul>	<p><b>Geometry - position and direction</b></p> <ul style="list-style-type: none"> <li>• describe positions on a 2-D grid as coordinates in the first quadrant</li> <li>• describe movements between positions as translations of a given unit to the left/right and up/down</li> <li>• plot specified points and draw sides to complete a given polygon</li> </ul> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>• interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</li> <li>• solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs</li> </ul>	