

## Whole-School Maths Progression: Place Value

| <u>Number and Place Value</u> | EYFS  | Statutory Curriculum Guidance<br><i>Non-Statutory Curriculum Guidance</i><br><i>Teacher Assessment Framework</i>  |  | Statutory Curriculum Guidance<br><i>Non-Statutory Curriculum Guidance</i>  |   |  |        |
|-------------------------------|---|---|--|--|---|--|--------|
| <u>Counting</u>               | Three and Four-Year-Olds<br>Reception<br>Early Learning Goals   | Year 1  | Year 2   | Year 3   | Year 4  | Year 5   | Year 6 |
|                               | <p>Recite numbers past 5.</p> <p>Say one number for each item in order: 1,2,3,4,5.</p> <p>Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').</p> <p>Count objects, actions and sounds.</p> <p>Count beyond ten.</p> <p>Verbally count</p> | <p>To count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</p> <p>To identify one more and one less than a given number.</p> <p>To count in multiples of twos, fives and tens from different multiples to develop their recognition of patterns in the number system, including varied and frequent practice through</p> | <p>To count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.</p> | <p><i>To continue to count in ones, tens and hundreds, so that pupils become fluent in the order and place value of numbers to 1000.</i></p> <p><i>To count from 0 in multiples of 4, 8, 50 and 100.</i></p> | <p><i>To count in tens and hundreds, and maintain fluency in other multiples through varied and frequent practice.</i></p> <p><i>To count in multiples of 6, 7, 9, 25 and 1000.</i></p> <p><i>To count backwards through zero to include negative numbers.</i></p> <p><i>To find 1000 more or less than a given number.</i></p> | <p>To count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.</p> <p>To interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.</p> |        |

## Whole-School Maths Progression: Place Value

|   |   |  |  |  |   |   |  |
|---|---|--|--|--|---|---|--|
|   | beyond 20, recognising the pattern of the counting system.  | increasingly complex questions.<br>To recognise and create repeating patterns with objects and with shapes.                      |  |  |   |   |  |
| <b><u>Reading and Writing Numbers</u></b> | <p>Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.</p> <p>Experiment with their own symbols and marks as well as numerals.</p> <p>Link the number symbol (numeral) with its cardinal number value.</p> | <p>To read and write numbers from 1 to 20 in numerals and words.</p> <p>To count, read and write numbers to 100 in numerals.</p> | To read and write numbers to at least 100 in numerals and in words.  | To read and write numbers up to 1000 in numerals and in words. |   | To read and write numbers to at least 1 000 000 and determine the value of each digit.    | To say, read and write, numbers up to 10 000 000 accurately and determine the value of each digit. |
| <b><u>Compare and Order Numbers</u></b>   | <p>Compare quantities using language: 'more than', 'fewer than'.</p> <p>Begin to describe a sequence of events, real or</p>   |  | To compare and order numbers from 0 up to 100; use <, > and = signs. | To compare and order numbers up to 1000.                       | To order and compare numbers beyond 1000. | To order and compare numbers to at least 1 000 000 and determine the value of each digit. | To order and compare numbers up to 10 000 000 accurately and determine the value of each digit.    |

## Whole-School Maths Progression: Place Value

|  |  |  |   |  |   |  |   |
|--|--|--|---|--|---|--|---|
|  | <p>fictional, using words such as 'first', 'then...'</p> <p>Compare numbers.</p> <p>Understand the 'one more than/one less than' relationship between consecutive numbers.</p> <p>Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.</p> |  |   |  |   |  |   |
| <p><b><u>Understanding Place Value</u></b></p> | <p>Understand the 'one more than/one less than' relationship between consecutive numbers.</p> <p>Explore the</p>   |  | <p>To recognise the place value of each digit in a two-digit number (tens, ones) to <i>become fluent and apply their knowledge of</i></p> | <p>To recognise the place value of each digit in a three-digit number (hundreds, tens, ones) and <i>apply partitioning</i></p> | <p>To recognise the place value of each digit in a four-digit number. <i>To begin to extend their knowledge of the number system to include</i></p> | <p><i>To extend and apply their understanding of the number system to the decimal numbers and fractions that they have met so far.</i></p> | <p>To use negative numbers in context, and calculate intervals across zero.</p> |

## Whole-School Maths Progression: Place Value

|                               |   |  |   |  |   |  |  |
|-------------------------------|---|--|---|--|---|--|--|
|                               | <p>composition of numbers to 10.</p> <p>Have a deep understanding of numbers to 10, including the composition of each number.</p> |  | <p>numbers to reason with, discuss and solve problems.<br/>To begin to understand zero as a place holder.</p> | <p>related to place value using varied and increasingly complex problems, building on work in year 2 (for example, <math>146 = 100 + 40</math> and <math>6</math>, <math>146 = 130 + 16</math>).</p> | <p>the decimal numbers and fractions that they have met so far.</p>   |  |  |
| <b><u>Rounding</u></b>        |   |  |   |  | <p>To round any number to the nearest 10, 100 or 1000.</p> <p>To connect estimation and rounding numbers to the use of measuring instruments.</p> | <p>To round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.</p> | <p>To round any whole number to a required degree of accuracy.</p> |
| <b><u>Roman Numerals</u></b>  |   |  |   |  | <p>To 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.</p> | <p>To read Roman numerals to 1000 (M) and recognise years written in Roman numerals.</p>     |  |
| <b><u>Problem Solving</u></b> | <p>Solve real world mathematical problems with</p>  | <p>To practise ordinal numbers and solve</p> | <p>To use place value and number facts to solve related</p>   | <p>To solve number problems and practical problems</p>   | <p>To solve number and practical problems that</p>  | <p>To solve number problems and practical problems</p>                                       | <p>To solve number and practical problems that</p>                 |

## Whole-School Maths Progression: Place Value

|  |   |  |   |  |  |  |  |
|--|---|--|---|--|--|--|--|
|  | <p>numbers up to 5.</p> <p>Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'</p>                                  | <p><i>simple concrete problems.</i></p>  | <p>problems to <i>develop fluency.</i></p>  | <p>involving these ideas.</p>  | <p>involve all of the above and with increasingly large positive numbers.</p>  | <p>that involve all of the above.</p>  | <p>involve all of the above.</p>   |
| <p><b><u>New Vocabulary Introduced</u></b></p> | <p>One more<br/>One less<br/>Place<br/>Order<br/>Number<br/>Count<br/>Numbers up to twenty<br/>Number line<br/>Pictorial Answer<br/>Equals<br/>Read<br/>Write</p> | <p>Forwards<br/>Backwards<br/>Numerals<br/>Words<br/>Multiples<br/>Equal to<br/>More than<br/>Less than<br/>Fewer<br/>Most<br/>Least<br/>Identify<br/>Represent<br/>Digit<br/>Calculate<br/>Odd<br/>Even<br/>Pattern<br/>Numbers up to one hundred</p> | <p>Ones<br/>Tens<br/>Two- digit<br/>Estimate<br/>Place Value<br/>Solve Problems<br/>Greater than &gt;<br/>Less than &lt;<br/>Nearest ten<br/>Number facts<br/>Partition<br/>Count in steps<br/>Zero<br/>Compare<br/>Determine<br/>Value</p> | <p>Hundreds<br/>Three-digit<br/>ten more<br/>one hundred<br/>more<br/>ten less<br/>one hundred less<br/>Roman numeral<br/>Numbers up to one thousand</p> | <p>Thousands<br/>Four- digit<br/>Negative number<br/>One thousand<br/>more<br/>One thousand<br/>less<br/>Decimal<br/>Decimal place<br/>Rounding<br/>Place holder<br/>Nearest ten<br/>Nearest hundred<br/>Nearest thousand<br/>One place<br/>Whole number<br/>Integer<br/>Tenths<br/>Hundredths</p> | <p>Ten thousands<br/>Hundred<br/>thousands<br/>Millions Context<br/>Steps of powers<br/>Decimal<br/>equivalents<br/>Two decimal<br/>places<br/>Thousandths<br/>Numbers up to one million</p> | <p>Intervals across<br/>zero<br/>Three decimal<br/>places<br/>Hundredths<br/>Thousandths<br/>Ten thousandths<br/>Numbers up to ten million</p> |