## **Mathematics**

## **Key Learning Indicators of Performance: Year 5**



Number – number and place value	Number – addition and subtraction	Number – multiplication and division
given number up to 1 000 000.  Count forwards and backwards in decimal steps.  Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit.  Read, write, order and compare numbers with up to 3 decimal places.  Identify the value of each digit to three decimal places.  Identify represent and estimate numbers using the number line.  Find 0.01, 0.1, 1, 10, 100, 100 and other powers of 10 more or less than a given number.  Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.  Round decimals with two decimal places to the nearest whole number and to one decimal place.  Multiply/divide whole numbers and decimals by 10, 100 and 1000.  Interpret negative numbers in context, count on and back	<ul> <li>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact. calculate mentally, use a jotting, written method).</li> <li>Select a mental strategy appropriate for the numbers involved in the calculation.</li> <li>Recall and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place).</li> <li>Derive and use addition and subtraction facts for 1 (with decimal numbers to two decimal places).</li> <li>Add and subtract numbers mentally with increasingly large numbers and decimals to two decimal places.</li> <li>Add and subtract whole numbers with more than 4 digits and decimals with two decimal places, including using formal written methods (columnar addition and subtraction).</li> <li>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li> <li>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li> <li>Solve addition and subtraction problems involving missing numbers.</li> </ul>	<ul> <li>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).</li> <li>Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</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 19.</li> <li>Recognise and use square (²) and cube (³) numbers, and notation.</li> <li>Use partitioning to double or halve any number, including decimals to two decimal places.</li> <li>Multiply and divide numbers mentally drawing upon known facts.</li> <li>Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.</li> <li>Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.</li> <li>Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.</li> <li>Use estimation/inverse to check answers to calculations; determine, in the context of a problem, an appropriate degree of accuracy.</li> <li>Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.</li> <li>Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</li> </ul>

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