



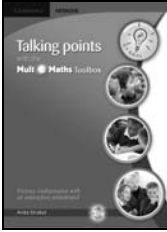
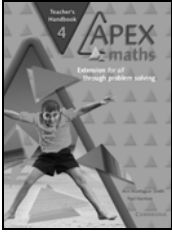
Year 4

Block A: Counting, partitioning and calculating

Unit 1

Objectives for this unit	Mult-e-Maths activities
Report solutions to puzzles and problems, giving explanations and reasoning orally and in writing, using diagrams and symbols	See references on page 2 to <i>Talking points with the Mult-e-Maths Toolbox</i> and <i>Apex Maths 4</i> .
Partition, round and order four-digit whole numbers; use positive and negative numbers in context and position them on a number line; state inequalities using the symbols < and >	<p><b>CN4S8 What's the largest number?</b> Trying to make the largest 4-digit number using 4 random digits that are revealed one at a time</p> <p><b>CN4S9 Estimating using a number line</b> Making and justifying estimates of positions of numbers on number lines</p> <p><b>CN4S11 Comparing temperatures</b> Using a thermometer scale to compare negative numbers in the context of temperature</p> <p><b>CN4S13 Negative numbers</b> Adding and subtracting to/from positive and negative numbers using a number line</p> <p><b>CN4L3 Understanding place value</b> Understanding the place value of numbers to at least 10 000</p> <p><b>CN4L4 Comparing numbers</b> Comparing 4-digit numbers and recording comparisons using &lt; and &gt; symbols</p> <p><b>CN4L5 Negative numbers</b> Recognising and comparing negative numbers</p>
Recognise and continue number sequences formed by counting on or back in steps of constant size	<p><b>CN4S2 Counting in 10s, 100s and 100s</b> Counting on and back in tens, hundreds and thousands from numbers with different numbers of digits</p> <p><b>CN4L1 Steps of 10, 100 and 1000</b> Counting in repeated steps of 10, 100 and 1000 to solve additions and subtractions</p>
Use knowledge of addition and subtraction facts and place value to derive sums and differences of pairs of multiples of 10, 100 or 1000	<p><b>NF4S1 Make 1000</b> Finding how many need to be added to a given multiple of 50 to make 1000</p> <p><b>NF4L1 Using addition and subtraction facts</b> Applying number facts to additions and subtractions involving multiples of 10, 100 and 1000</p>
<b>Add or subtract mentally pairs of two-digit whole numbers</b>	<p><b>CA4S3 Near doubles</b> Identifying near doubles and using doubles to find their totals</p> <p><b>CA4S4 Related number facts</b> Using understanding of addition and subtraction and the relationship between them to give related number facts</p> <p><b>CA4L1 Finding differences</b> Finding differences, focusing on counting up</p>
<b>Derive and recall multiplication facts up to 10 × 10, the corresponding division facts and multiples of numbers to 10 up to the tenth multiple</b>	<b>NF4L4 Identifying multiples</b> Identifying and investigating multiples of numbers to 10
Multiply and divide numbers to 1000 by 10 and then 100 (whole-number answers), understanding the effect; relate to scaling up or down	<b>CA4L9 Multiplying and dividing by 10</b> Investigating the effect of multiplying and dividing by 10
Identify the doubles of two-digit numbers; use these to calculate doubles of multiples of 10 and 100 and derive the corresponding halves	<p><b>NF4S4 Doubles of numbers to 20 and halves</b> Practising giving doubles of whole numbers to 20 and their corresponding halves</p> <p><b>NF4L2 Doubles of 2-digit numbers and halves</b> Doubling and halving by partitioning first, and using doubles and halves to multiply and divide</p>
Use a calculator to carry out one-step and two-step calculations involving all four operations; recognise negative numbers in the display, correct mistaken entries and interpret the display correctly in the context of money	<b>CA4L16 Using a calculator</b> Using a calculator for a range of 1-step and 2-step calculations, including in the context of money
Use knowledge of rounding, number operations and inverses to estimate and check calculations	<b>CA4L16</b> (above) also links to this objective.

End-of-year expectations for this unit are in **bold**.

Vocabulary			
<p>problem, solution, calculate, calculation, equation, operation, answer, method, explain, predict, reason, reasoning, pattern, relationship, rule, sequence, place value, partition, thousands, digit, four-digit number, decimal point, decimal place, tenths, hundredths, positive, negative, above/below zero, compare, order, greater than (&gt;), less than (&lt;), equal to (=), round, estimate, approximately, add, subtract, multiply, divide, sum, total, difference, plus, minus, product, quotient, remainder, calculator, display, key, enter, clear, constant, pound (£), penny/pence (p), units of measurement and their abbreviations, degrees Celsius (°C)</p>		<p>Use <i>A Maths Dictionary for Kids</i> when discussing mathematical vocabulary for this unit.</p> 	
Other resources			
<p>Use the following <i>Mult-e-Maths Toolbox</i> tools for this unit:</p> <ul style="list-style-type: none"> <li>• Place value chart</li> <li>• Place value mat</li> <li>• Number lines</li> <li>• Number grids</li> <li>• Multiplication grid from number grid tool</li> <li>• Function machine</li> <li>• Multiplication grid from number grid tool</li> <li>• Calculator</li> </ul>		<p>Use activity <b>N4.7 Addition tables</b> from <i>Talking points with the Mult-e-Maths Toolbox</i> to develop reporting of solutions for problems based on the knowledge of addition and subtraction facts.</p> 	<p>Use activity <b>1 What are we?</b>, activity <b>2 Sum puzzle</b> or activity <b>21 Grid totals</b> from <i>Apex Maths 4</i> to practise mental addition strategies and reasoning about numbers.</p> 
	<p>Use <i>Perfect Times</i> to practise recall of multiplication facts.</p> 