














# Addition, Subtraction, Multiplication and Division: Calcu-late!

<p><b>Aim:</b> Perform mental calculations, including with mixed operations and large numbers.</p> <p>I can perform mental calculations with mixed operations.</p>	<p><b>Success Criteria:</b> I can partition a variety of numbers.</p> <p>I can add or subtract the nearest multiple of 10 or 100 then adjust.</p> <p>I can identify near doubles.</p> <p>I can use repeated doubling or halving.</p>	<p><b>Resources:</b> <b>Lesson Pack</b> Dice Counters Playing Cards - if extension is required</p>
<p><b>Key/New Words:</b> Multiple, add, plus, subtract, minus, take away, sum, total, nearest, partition, partitioning, repeated steps, mental, strategy, adjust, nearest multiple, doubling, halving, equivalent calculation, multiply, multiplication, lots of, groups of, divide, division.</p>	<p>I can solve problems using known number facts.</p>	<p><b>Preparation:</b> <b>Pyramid Puzzle Activity Sheet</b> - 1 per pair Differentiated <b>Mental Calculation Board Game</b> - 1 per pair <b>Extra Challenge Activity Sheet</b> - as required <b>Blank Decimal Place Value Chart</b> - as required</p>

**Prior Learning:** It will be helpful if children have a secure understanding of place value, multiplication facts and corresponding number facts.

## Learning Sequence

	<p><b>Pyramid Puzzle:</b> In pairs, the children fill in the <b>Pyramid Puzzle Activity Sheet</b> by working backwards from 100, finding two numbers that add up to the number in the box above. The children continue the activity until they have completed the pyramid. There are various answers.</p>	
	<p><b>Mental Method Madness:</b> Revise mental strategies on the <b>Lesson Presentation</b>. Repeat with additional examples if necessary.</p>	
	<p><b>Calcu-late!</b> Using the <b>Lesson Presentation</b>, the children work in pairs to match the calculations with the corresponding answers on the slides against the timer. <i>Can the children explain how they completed the calculation? Which mental calculation method they choose? Did anybody use a different mental calculation method?</i></p>	
	<p><b>Game Time!</b> In pairs, the children play the <b>Mental Calculation Board Game</b>. Taking turns, each child rolls the dice and moves the desired amount of spaces on the board. The child completes the calculation. If the answer is incorrect, they child must move their counter back to its original place. The first player to the end wins. Support can be given through the use of <b>Blank Decimal Place Value Charts</b> for children to make jottings on.</p> <div style="display: flex; justify-content: space-around;"> <div>  <p>The children complete the calculations they land on by <b>selecting and using an appropriate mental calculation method to answer the two-step whole number and simple decimal calculations.</b></p> </div> <div>  <p>The children complete the calculations they land on by <b>selecting and using an appropriate mental calculation method to answer the two-step whole number and decimal calculations.</b></p> </div> <div>  <p>The children complete the calculations they land on by <b>selecting and using an appropriate mental calculation method to answer multi-step calculations.</b> An <b>Extra Challenge Activity Sheet</b> is provided as an extension activity if required.</p> </div> </div>	
	<p><b>Being the Teacher:</b> Using the <b>Lesson Presentation</b>, invite children to imagine they are the teacher and think of two questions that they could ask the class to ensure they have met the learning objective. Select children to share their ideas. <i>Can children answer the questions giving reasoning?</i></p>	

## Masterit

**Quizit:** Children have a go at answering the questions on this fabulous [Multiplication and Division, Drawing upon Known Facts Maths Mastery Activities PowerPoint](#).