














Addition, Subtraction, Multiplication and Division: Gotta Find Em All!

<p>Aim: Perform mental calculations, including with mixed operations and large numbers.</p> <p>I can perform mental calculations with mixed operations.</p>	<p>Success Criteria: 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>I can solve problems using known number facts.</p>	<p>Resources: Lesson Pack</p>
<p>Key/New Words: 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>Preparation: Differentiated Star Grid Game - 1 per pair Extra Challenge Activity Sheet - as required Blank ThHTO Place Value Chart - 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>How Much More? Say a length, e.g. 7.67m to the class. The children then say how much is needed in metres to make the next metre, e.g. 0.33m and the next multiple of ten metre, e.g. 2.33m. Repeat with other units of measurement, e.g. litres and kilograms.</p>	
	<p>Star Training: Revise mental strategies on the Lesson Presentation. Repeat with additional examples if necessary.</p>	
	<p>Puzzle Points: Split the class into two groups. Using the Lesson Presentation, the children work together in their groups to calculate the answer to the series of questions on the board. The first group to answer the question chooses a box from the slide which will reveal points awarded. The group with the most points wins. <i>Can the children explain how they completed the calculation? Which mental calculation method did they choose? Did anybody use a different mental calculation method?</i></p>	
	<p>Gotta Find Em All! Explain to the children that they will be playing a find and sink game. In pairs, the children mark the locations of three stars on their Star Grid Game. Taking turns, each child selects a calculation card. The child completes the calculation. If the answer is correct, they can select a coordinate on the grid to find their partner's stars. The first person to find to find all their partner's stars wins.</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="213 1305 580 1664">  <p>In pairs, the children take turns to complete calculations by selecting and using an appropriate mental calculation method to answer the two-step whole number calculations. Support can be given through the use of a Blank ThHTO Place Value Chart for children to make jottings on.</p> </div> <div data-bbox="612 1305 979 1574">  <p>In pairs, the children take turns to complete calculations by selecting and using an appropriate mental calculation method to answer the two-step whole number and simple decimal calculations.</p> </div> <div data-bbox="1011 1305 1378 1664">  <p>In pairs, the children take turns to complete calculations by selecting and using an appropriate mental calculation method to answer the two-step whole number and decimal calculations. An Extra Challenge Activity Sheet is provided as an extension activity if required.</p> </div> </div>	
	<p>True or False: Using the Lesson Presentation, show children a range of missing number calculations. The children have to prove or disprove the statements relating to the calculation. Can children use reasoning to explain why an answer is correct or incorrect? Can children explain their method of working?</p>	

Masterit

- Playit:** Let your children practise their mental skills using this [Mental Maths Game](#).
- Quizit:** Children have a go at answering the questions on this fabulous [Mental Calculation Quiz](#).