











# Addition, Subtraction, Multiplication and Division: Games Galore

<p><b>Aim:</b> Solve problems involving addition and subtraction, multiplication and division.</p> <p>I can select the correct operation/s to use and solve a problem, checking the answer using estimation.</p>	<p><b>Success Criteria:</b> I can decide whether a problem is one, two or multi-step.</p> <p>I can decide if I need to use addition, subtraction, multiplication or and/or division.</p> <p>I can solve word problems and talk about how I did it.</p> <p>I can use estimation to check the answer to the question.</p>	<p><b>Resources:</b> Lesson Pack Counters</p>
	<p><b>Key/New Words:</b> Solve, total, more, minus, plus, decrease, increase, sum, difference between, total, altogether, calculate, method, spent, change, nearest multiple, doubling, halving, multiply, multiplication, lots of, groups of, divide, division, fraction, percentage.</p>	<p><b>Preparation:</b> Target Whole Number Board - 1 per child 1-3 Dice - 1 per group Problem Solving Game - 1 per pair Problem Solving Score Board Sheet - 1 per pair Problem Solving Loop Cards - as required Extra Challenge Activity Sheet - as required RUCSAC Prompt Posters - 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>Under Pressure:</b> In pairs, children have a <b>Target Whole Number Board</b>. Ask children to add or subtract at least two of numbers to make; the highest multiple of 10, the lowest multiple of 10, the highest total with three numbers, the lowest total by subtracting one number from another, the highest row total and the lowest column total. Use the timer if you would like this to be a timed challenge.</p>	
	<p><b>Training Time:</b> Read through the slides from the <b>Lesson Presentation</b>, modelling RUCSAC to help identify the operation/s and solve word problems. Repeat with further examples if required.</p>	
	<p><b>Match It:</b> Working with a partner, children use RUCSAC to solve the word problems on the <b>Lesson Presentation</b> and match the question to the correct answer. <i>Can the children select the key words in the word problems? Which operation did you choose? Can the children calculate the answer? Did the children check their answer?</i></p>	
	<p><b>Games Galore:</b> Using the differentiated <b>Problem Solving Game</b>, children in mixed-ability pairs take turns to roll the <b>1-3 Dice</b> and move their counter the desired amount of spaces. The children answer the question that they land on. Their partner checks the answer. If the answer is correct, the child can add the answer to their <b>Problem Solving Score Board Sheet</b>. The child with the most points on their <b>Problem Solving Score Board Sheet</b> wins. Remind children to use RUCSAC to help them during the task, providing <b>RUCSAC Prompt Cards</b> if required and check their answers using estimation. An alternate version of this activity is <b>Problem Solving Loop Cards</b> where children ordering the cards to complete the loop. Again, this activity should be played in mixed-ability pairs. An <b>Extra Challenge Activity Sheet</b> is provided as an extension activity if required.</p>	
	<p><b>Game Creator:</b> Invite children to create their own multi-step problems that could be used to extend the game that they have played. <i>Can the children identify key words? Can children provide enough information for another child to solve the problem? Did the children calculate the answer? Did they check their answer using estimation?</i></p>	

## Masterit

**Rapit:** Children create a song about solving problems using RUCSAC.

**Representit:** Children visually represent the word problems using bar modelling.