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<p><b>Aim:</b> Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers</p> <p>DfE Ready-to-Progress Criteria: Add and subtract within 100 by applying related one digit addition and subtraction facts: add and subtract any 2 two digit numbers. (2 AS-4)</p> <p>To add two 2-digit numbers by adding the ones (not crossing 10) and the tens.</p>	<p><b>Success Criteria:</b> I can add ones not crossing ten. I can use number facts to add two 2-digit numbers. I can use a number line to add two 2-digit numbers.</p>	<p><b>Resources:</b> <a href="#">Lesson Pack</a></p> <p>Representations of tens and ones if required</p>
	<p><b>Key/New Words:</b> Closest to, closer to, higher than, lower than, highest, lowest, between, number facts, calculation, add, addition, plus, count forward, count on, number line, tens, ones, 2-digit 1-digit, steps, multiples of ten, keep track, explain, prove, reason, represent, patterns, continue a pattern.</p>	<p><b>Preparation:</b> <a href="#">Scoring Points Activity Sheets</a> – one per child <a href="#">Diving into Mastery Activity Cards</a> – as required <a href="#">Blank Number Lines</a> – as required</p>

<p><b>Prior Learning:</b></p>	<p>It would be helpful if children can add multiples of ten to two-digit numbers. Guidance and resources for this learning can be found in the lesson</p>
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## Learning Sequence

	<p><b>Remember It:</b> Class teams take turns to pick a card on the <a href="#">Lesson Presentation</a>. When each group has two cards, they add the two numbers to find the total. The team with the closest value to 20 wins a point. They then replay the game. Encourage children to recall where some of the numbers are to help them reach their target. This information can also be used to block their opposing teams. This game can be revisited with a different target number.</p>	
	<p><b>How Would You Add?</b> Look at the two numbers on the <a href="#">Lesson Presentation</a>. Invite the children to use these to make an addition calculation. Ask the children to explain their reasoning as they choose which number they would prefer to start with. This is then demonstrated on an empty number line. The number with the greatest value is used as the starting point. There are now fewer steps to count on.</p>	
	<p><b>Scoring Points:</b> The <a href="#">Lesson Presentation</a> shows two different strategies for adding two 2-digit numbers. The number with the greatest value is placed on an empty number line as a starting point. The second number is partitioned into tens and ones. The jumps of ten are taken first followed by the jumps of one. Children are also shown how to apply known number facts: I know <math>3 + 2 = 5</math> so I know <math>30 + 20 = 50</math>. I know <math>4 + 1 = 5</math> so I know altogether <math>50 + 5 = 55</math>.</p>	
	<p><b>Scoring Points Activity:</b> Children investigate the differentiated <a href="#">Scoring Points Activity Sheets</a>. They read the clues and use the strategies taught in the lesson to find the solutions. <i>Can the children use number lines to add two 2-digit numbers, not crossing 10? Can the children use number facts to add two 2-digit numbers, not crossing ten?</i></p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="239 1534 566 1937">  <p>Children calculate each child's score from the beanbag throw. They then go on to investigate all of the possible totals. They can use <a href="#">Blank Number Lines</a> or known number facts to find solutions. Concrete representations of tens and ones may also be used.</p> </div> <div data-bbox="574 1534 965 1915">  <p>Children calculate each child's score from the beanbag throw. They then go on to investigate all of the possible totals and sequence them from the lowest value to the highest value. They can use <a href="#">Blank Number Lines</a> or known number facts to find solutions. Children explain how they reached their solutions.</p> </div> <div data-bbox="973 1534 1364 1993">  <p>Children calculate each child's score from the beanbag throw. They then go on to investigate all of the possible totals and sequence them from the lowest value to the highest value. Children may wish to include number doubles in this challenge. They can use <a href="#">Blank Number Lines</a> or known number facts to find solutions. Children explain how they reached their solutions.</p> </div> </div>	

	<p><b>Diving into Mastery:</b> Schools using a mastery approach may prefer to use the following as an alternative. These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.</p> <p> Children develop fluency adding two 2-digit numbers using number lines.</p> <p> Children demonstrate their reasoning skills as they look at two calculations and decide whether they have been solved correctly.</p> <p> Children investigate an all possibilities challenge. The children add pairs of two-digit numbers to reach the same total. They follow clues to narrow down possibilities.</p>	
	<p><b>One Hundred Square:</b> Children choose a pair of numbers on the hundred square and find the total. When the numbers are clicked, they will change colour to show which numbers have been selected.</p>	

### Exploreit

**Colourit:** Practise addition skills with this \_\_\_\_\_.

**Playit:** Play games in PE which involve addition, similar to the hoop game. Children can choose different numbers to put in the hoops.

**Rollit:** Children roll four dice to make two two-digit numbers which they add to get as close to the target number as possible. Target numbers could be 10, 20, 60 or 100.

**Learnit:** Children will find this visually exciting \_\_\_\_\_ a useful tool to support addition and subtraction skills.