Addition and Subtraction: Subtract Two 2-Digit Numbers, Crossing 10

Aim:	Success Criteria:	Resources:
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. Add and subtract within 100 by applying related one digit addition and subtraction facts: add and subtract any 2 two-digit numbers (2AS-4). To subtract two 2-digit numbers crossing 10.	I can use number facts to subtract two 2-digit numbers crossing 10. I can use part-whole models to subtract two 2-digit numbers crossing 10. I can use number lines to subtract two 2-digit numbers crossing 10.	Lesson Pack Representations of tens and ones if required

	Key/New Words:	Preparation:
	Number fact, subtract, subtraction, minus, part, whole, part-whole model, partition, number line, subtract across ten, bridging ten, recall, predict, reason, explain.	Differentiated Subtract Two 2-Digit Numbers Crossing 10 Activity Sheets – one per child Diving into Mastery Activity Cards – as required

Prior Learning: It would be helpful if children have experience subtracting a one-digit number from a two-digit number crossing ten. The following lesson supports this learning: _____

Learning Sequence

	Remember It: The Lesson Presentation revisits using blank number lines to subtract two 2-digit numbers not crossing ten. Children are reminded that they can subtract the tens or the ones first.	
	Jump-Back Jill: The Lesson Presentation welcomes the return of Jump-Back Jill, who reminds the children how to subtract a one-digit number from a two-digit number crossing ten. Jill jumps back to the nearest multiple of ten then subtracts the remaining part of the number. The two parts are also depicted on a part-whole model. Jill then demonstrates how the same strategy can be applied after subtracting the tens first.	
	Jumping Further: The Lesson Presentation moves on to show how this strategy can be applied to subtract two 2-digit numbers. Invite the children to practise using blank number lines to solve the calculations. Can the children use a number line to subtract two 2-digit numbers crossing 10?	
	Subtract Two 2-Digit Numbers Crossing 10: Children complete the differentiated Subtract Two 2-Digit Numbers Crossing 10 Activity Sheets. Can the children use number facts to subtract two 2-digit numbers crossing 10? Can the children use part-whole models to subtract two 2-digit numbers crossing 10?	

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Children use part-whole models and partially completed number lines to subtract two 2-digit numbers crossing ten. Children may also use representations of tens and ones to support their learning.	Children use known number facts, part-whole models and structured blank number lines to subtract two 2-digit numbers crossing ten.	Children use known number facts, part-whole models and blank number lines to subtract two 2-digit numbers crossing ten.

Diving into Mastery: 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.

Children build fluency subtracting two 2-digit numbers crossing ten. Children learn that they can subtract the ones or the tens first, they then complete the last two calculations with their preferred method.

Children check a collection of calculations subtracting two 2-digit numbers crossing 10. They demonstrate their reasoning skills by spotting and describing errors, then explaining solutions.

Children apply their problem-solving skills by subtracting two 2-digit numbers crossing 10 to find and continue a pattern to reveal an answer. Once the children find the solution, they create their own calculation patterns to reach the same answer. The children pool their ideas to see if they have discovered all of the possibilities.

Jill's Challenge: Children choose their preferred strategies to complete subtraction calculations. They look for patterns and discover that an extra ten is subtracted in each calculation. They use this pattern to help them continue the sequence of calculations.

Exploreit

Jumpit: The children work with a partner and use chalk in the playground to draw a blank number line. They take turns to write a calculation subtracting two 2-digit numbers crossing 10 on a white board, jumping back on the blank number line, saying each part of the calculation and noting their landing points along the way. They can then check their calculations together.

Masterit: Explore these _____ to develop fluency, reasoning and problem-solving skills while subtracting two 2-digit numbers crossing ten.

Learnit: Children will find this superb _____ a great resource to support addition and subtraction methods.