Number and Place Value: Partitioning

Aim:	**Success Criteria:**	**Resources:**
Recognise the place value of each digit in a two-digit number (tens, ones). DFE Ready-to-Progress Criteria: Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning. (2NVP-1) To partition numbers into tens and ones.	I can say what the value of each digit in a two-digit number is. I can write two-digit numbers as tens and ones. I can write two-digit numbers in the expanded form. I can show two-digit numbers as tens and ones using equipment.	Lesson Pack Tens and ones equipment such as place value counters and base ten blocks. Whiteboards and pens - class set
	Key/New Words: Numbers 0-100, up, back, zero, teen, two-digit, represent, partition, tens, ones, equation , expanded form, addition, subtraction, groups of ten.	**Preparation:** Differentiated Partitioning Two-Digit Numbers Activity Sheets – one per child Square Number Cards 0-100 – as required Diving into Mastery Activity Sheets - as required

Prior Learning:	Year 1 conceptual prerequisite: It will be helpful if children know that multiples of 10 are made up from a number of tens, for example, 50 is 5 tens. For a great lesson to support this please click here.

Learning Sequence

	**Remember It:** Show the representations on the Lesson Presentation and ask the children to reason what they think will come next. Link to previous learning of counting in steps of ten. Encourage a discussion on the variety of representations and how they show that 10 ones is the same as 1 ten.	
	**Partitioning:** Review partitioning, explaining how two-digit numbers can be partitioned into tens and ones. Use the Lesson Presentation to show two-digit numbers partitioned using different representations. Introduce two-digit numbers being partitioned in addition and subtraction equations. Children practise using this method to show partitioned numbers on whiteboards. Can the children say what the value of each digit in a two-digit number is? Can they write two-digit numbers as tens and ones?	
	**Expanded Form:** Model writing expanded number sentences. Continue with the Lesson Presentation, asking children to practise writing numbers in expanded form on whiteboards. Encourage children to discuss what each part of the number sentence represents. Can the children represent a two-digit number using the expanded form?	
	**Partitioning Activity:** Children complete the Partitioning Two-Digit Numbers Activity Sheets using the Square Number Cards 0-100, partitioning two-digit numbers into tens and ones in a variety of representations.  Children select a two-digit number card randomly and write it on their activity sheet. They make the number out of base ten equipment, partition it using the part-whole model and write the number of tens and ones underneath.  Children select a two-digit number card randomly and write it on their activity sheet. They partition it using the part-whole model and write the expanded form underneath.  Children select a two-digit number card randomly and write it on their activity sheet. They partition it using the part-whole model, write it in a place value chart, and write the expanded form.	

Diving into Mastery: Schools using a mastery approach may prefer to use the following as an alternative activity.These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, 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 use their knowledge of partitioning to complete a part-whole model and write the correct number sentences to support it. They then go on to create their own part-whole models and supporting number sentences.

Children match the tens and ones values to the two-digit number to find the ones that don't match. They use reasoning to explain why they don't match.

Children apply their problem solving skills to explain what will come next in a tens and ones pattern. They then create their own patterns for a friend to continue.

Missing Numbers: Looking at the **Lesson Presentation**, children work in pairs to find the missing numbers using information given in the part-whole diagrams and expanded number sentences.

Exploreit

Matchit: The children work in pairs to play a game of matching using the
After matching the cards, children could partition the number.

Partitionit: For more practice at partitioning into tens and ones, use this fabulous differentiated _____

Learnit: Children will find this visually exciting useful tool for supporting their understanding of number and place value.