Partitioning numbers in different ways lesson plan

Subject: Maths	**Lesson Title:** Partitioning numbers in different ways
Date:	**Time Span:**
Year Group: Year 3	**Group Size:** 30

Desired Learning Outcomes To understand how to partition numbers in different ways	**NC PoS ref:**

Key Language: Partition, split, break, worth, value, units, tens, hundreds and thousands, tenths, hundredths and thousandths	**Use of ICT:** Smartboard for intro

Assessment (Make reference to each section of the lesson)
Intro – Children to attempt sample questions on the carpet on their pupil whiteboards
Main – Mark children's work as they complete it. Sit with any children who are struggling, bringing them back to the carpet if necessary. If still unsure by end of lesson sit with TA during plenary.
Plenary – Can children partition their own numbers in different ways?

Use of Other Adults
TA to work with G+T children
TA to monitor progress of other children once begin work
TA to sit and continue working with children (of any ability) who struggled in plenary

Anticipated Misconceptions/Difficulties
Children not including the right number of 0s e.g. 47 = 4 + 7 or 678 = 60 + 7 + 8
Children being confused by the equals sign coming at the beginning of the number sentence
Children not being able to calculate mentally which numbers are missing
G + T – children not understanding / forgetting that they need to write zero point … to show tenths e.g. 0.8, not 08 or just the digit 8

Resources
Units blocks, tens sticks and hundreds cubes
Pupil whiteboards and pens

Introduction	**Time**
TA to take G+T children and go through following slides of PowerPoint: • Explaining how a unit can be split in to tenths, with a visual representation • Explaining how a unit can be split in to hundredths, with a visual representation • An explanation and visual representation of how a unit, tenth, hundredth and thousandth relate to each other • Explaining how zeros after the final digit in numbers with a decimal place are irrelevant • How to partition numbers in to their units and tenths in different ways, with visual representations of the units and tenths • How to partition numbers in to their units, tenths, hundredths and thousandths in different ways, with visual representations of each • Some more examples of how to partition numbers in to their units, tenths, hundredths and thousandths. Emphasise the need to get the number of zeros right Teacher go through PowerPoint covering the following with rest of class: • How to partition some 2-digit numbers in to their tens and units in 3 different ways, with visual representations of the tens and units • How to partition some 3-digit numbers in to their hundreds, tens and units in 3 different ways, with visual representations of the hundreds, tens and units • How to partition a 4-digit number in to thousands, hundreds, tens and units in 3 different ways	10 mins
Main (including differentiated tasks) Lower ability – fill in missing number in partitioning sentence with 2-digit numbers e.g. 45 = 40 + __ + 2 Middle ability – as lower ability, but with 3-digit numbers Higher ability – as lower ability, but with 4-digit numbers Gifted and talented – as lower ability, but with decimal places	25 mins
Plenary Children think of their own number to partition on their whiteboard Partition this number in as many ways as possible Show work to a partner, explaining how they partitioned each number, focusing on using the correct vocabulary (units, tens, hundreds etc) e.g. 'I partitioned 63 in to 3 tens + 3 tens + 2 units + 1 unit	10 mins