

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	NC PoS ref:
To understand how to partition numbers in different ways	

Key Language: Partition, split, break, worth, value, units, tens, hundreds and thousands, tenths, hundredths and thousandths	Use of ICT: Smartboard for intro
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Assessment (Make reference to each section of the lesson) Intro – Children to attempt sample questions on the carpet on their pupil whiteboards. More able children to attempt to partition 4-digit numbers independently 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?
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Use of Other Adults TA to monitor progress of G+T children attempting work without listening to intro 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 think of their own different ways to partition the numbers 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 Unit squares and tenth strips Pupil whiteboards and pens

<p>Introduction</p> <p>(On each slide emphasise how thinking of one digit at a time makes it easy to partition the numbers in different ways e.g. to partition 63 in different ways, first partition the 60 and then partition the 3)</p> <p>TA to take G+T children and go through following slides of PowerPoint:</p> <ul style="list-style-type: none"> • 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 <p>Teacher go through PowerPoint covering the following with rest of class:</p> <ul style="list-style-type: none"> • 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 	<p>Time</p> <p>10 mins</p>
<p>Main (including differentiated tasks)</p> <p>Lower ability – partition 2-digit numbers in 3 different ways</p> <p>Middle ability – partition 3-digit numbers in 3 different ways</p> <p>Higher ability – partition 4-digit numbers in 3 different ways</p> <p>Gifted and talented – partition numbers with decimal places in 3 different ways</p>	<p>25 mins</p>
<p>Plenary</p> <p>Children think of their own number to partition on their whiteboard</p> <p>Partition this number in as many ways as possible</p> <p>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</p>	<p>10 mins</p>