

# Place Value: Non-Standard Partitioning

<p><b>Aim:</b> Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.</p> <p>DFE Ready -to-Progress Criteria: Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning. (6NPV-2)</p> <p>To compose and partition numbers up to 10 million using non-standard partitioning.</p>	<p><b>Success Criteria:</b> I can partition numbers up to 10 million in non-standard ways and write the related addition calculation.</p> <p>I can combine non-standard units to compose numbers up to 10 million and write the related addition calculation.</p> <p>I can solve problems relating to non-standard partitioning.</p>	<p><b>Resources:</b> Lesson Pack</p> <p>Whiteboards and pens – class set</p> <p>Place Value Counters</p>
	<p><b>Key/New Words:</b> Compose, partition, standard partitioning, non-standard partitioning, digit, ones, tens, hundreds, thousands, millions, part-whole, unit part.</p>	<p><b>Preparation:</b> Non-Standard Partitioning Roll and Read Game – per pair</p> <p>Diving into Mastery Activity Sheets – as required</p>

**Prior Learning:** It would be beneficial for the children to be confident in composing and partitioning numbers up to 10 million using standard partitioning before teaching this lesson.

## Learning Sequence

	<b>Remember It:</b> Using the corresponding slides on the <a href="#">Lesson Presentation</a> , the children rehearse composing and partitioning numbers up to 10 million using standard partitioning.	
	<b>Non-Standard Partitioning:</b> Using the corresponding slides on the <a href="#">Lesson Presentation</a> , introduce non-standard partitioning using the part-whole models and place value counters. Emphasise that when a number is partitioned in different ways, the value of the number stays the same. If extra practice of this fluency skill is required, use place value counters to rehearse partitioning numbers in non-standard ways practically. <b>Can the children partition numbers up to 10 million in non-standard ways and write the related addition calculation?</b>	
	<b>Non-Standard Composing:</b> Using the corresponding slides on the <a href="#">Lesson Presentation</a> , use the non-standard groups of place value counters show on the part-whole models to develop fluency in composing numbers up to 10 million from non-standard units. <b>Can the children combine non-standard units to compose numbers up to 10 million and write the related addition calculation?</b>	
	<b>Non-Standard Partitioning Roll and Read Game:</b> Children work with partners to complete the <a href="#">Non-Standard Partitioning: Roll and Read Game</a> to demonstrate they can compose and partition numbers up to 10 million using non-standard partitioning.	
	<b>Numbers to 10 Million: Reasoning:</b> Use the problems displayed on the <a href="#">Lesson Presentation</a> to develop reasoning skills about non-standard partitioning and the related addition and subtraction calculations. <b>Can the children solve problems relating to non-standard partitioning?</b>	
	<p><b>Diving into Mastery:</b> 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.</p> <ul style="list-style-type: none"> <li> Children complete fluency problems involving composing and partitioning numbers up to 10 million using non-standard partitioning in a range of contexts.</li> <li> Children answer reasoning questions involving composing and partitioning numbers up to 10 million using non-standard partitioning in a range of contexts, explaining their reasoning.</li> <li> Children work individually or collaboratively on problem-solving questions composing and partitioning numbers up to 10 million using non-standard partitioning in a range of contexts.</li> </ul>	
	<b>Non-Standard Partitioning Hopscotch:</b> Using the corresponding slide on the <a href="#">Lesson Presentation</a> , the children use their understanding of non-standard partitioning to 'jump' up the hopscotch to compose the number at the end.	

**Explore!**

**Play!** Following on from the final activity in the main lesson, the children create their own non-standard partitioning hopscotches outside using chalk.