








Number and Place Value: Read and Write Numbers to 100 000

Aim: Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit. To read and write numbers up to at least 100 000.	Success Criteria: I can read and write numbers up to 100 000 in words. I can read and write numbers up to 100 000 in digits. I can partition numbers up to 100 000. I can use different representations to make numbers up to 100 000.	Resources: Lesson Pack Place value counters
	Key/New Words: Ten thousands, hundred thousands, thousands, hundreds, tens, ones, zero, digits, partition, place value.	Preparation: Place Value Grid – as required Lucky Dip Activity Sheet – one per pair Differentiated Read and Write Numbers to 100 000 Activity Sheet – one per child Tenths and Hundredths Place Value Grid – one per child Diving into Mastery sheets – as required

Prior Learning: Children should recognise the place value of digits in four-digit numbers. They may have composed and decomposed four-digit numbers using standard and non-standard partitioning. Click [here](#) to find other lessons that seek to consolidate this step.

Learning Sequence

	Remember It: Using the Lesson Presentation , children partition numbers with up to four digits, writing the value of each number in words.	
	Place Value: Introduce the context of the lesson using the Lesson Presentation . Children use place counters to represent different numbers on a place value grid, recapping how a ten-frame can be used to help recognise where one number is ten times the size of the last. Can children represent numbers up to 100 000?	
	Parts of Numbers: Children compose and decompose numbers using standard and non-standard partitioning. They explore the value of digits in numbers that have been decomposed and written in words. Can children partition numbers up to 100 000?	
	Reading Numbers: Children progress from visual representation, reading numbers from right to left using a place value grid. They read numbers with up to five digits from the Lesson Presentation .	
	Lucky Dip: Children sort randomly selected counters according to their place values, using the Lucky Dip Activity Sheet to help when reading and writing numbers up to 100 000. Can children read and write numbers up to 100 000 in words? Can children read and write numbers up to 100 000 in digits?	
	Composing Numbers: Using the Lesson Presentation and Place Value Grids , children read decomposed numbers, writing composed equivalents in words and digits.	
	Read and Write Numbers to 100 000: Children work individually to complete the Differentiated Read and Write Numbers to 100 000 Activity Sheet to demonstrate they can read and write numbers to 100 000. <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Children use concrete and visual models to help read, write and show the value of digits in numbers up to 100 000.</p> </div> <div style="text-align: center;"> <p>Children use visual and written methods to help when reading and writing numbers up to 100 000.</p> </div> <div style="text-align: center;"> <p>Children read and write a range of composed and decomposed numbers up to 100 000 in words and digits.</p> </div> </div>	

	<p>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.</p> <p> Children represent numbers pictorially, in digits and in words. They compose numbers from partitioned digits, recognising the place value of each digit in given five-digit numbers.</p> <p> Children progress to answer reasoning and problem-solving questions. They use their knowledge of non-standard partitioning to spot and explain mistakes in calculations.</p> <p> Children answer multi-step problems in the context of reading and writing numbers to 100 000. They work towards mastery when representing five-digit numbers in a variety of ways.</p>	
	<p>Number Puzzles: Children recap on learning, matching numbers to the correct written representations.</p>	

ExploreIt

DecomposeIt: Challenge your children to decompose given five-digit numbers using non-standard partitioning.

LearnIt: Children will find this visually exciting _____ a useful tool for understanding place value.

MakeIt: Challenge your children to represent a given five-digit number in as many ways as possible. How many concrete, pictorial and abstract representations can they make?