

Number and Place Value: Determine Decimal Number Digit Values

Aim: Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit. 5NPV-2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and nonstandard partitioning. To determine the value of each digit in decimal numbers.	Success Criteria: I can use visual and abstract methods to identify the value of digits in a decimal number. I can identify how to alter a digit in a decimal number. I can solve problems involving different digits in a decimal number.	Resources: Lesson Pack
	Key/New Words: Place value, digit, tenths, hundredths, thousandths, decimal, whole, ones.	Preparation: Differentiated Decimal Digits Activity Sheet – one per child Diving into Mastery Activity Sheets – as required

Prior Learning: It will be helpful if children can recognise numbers up to 1000.

Learning Sequence

	Remember It: Children partition the numbers on the Lesson Presentation to reinforce the previous objective reading and writing numbers to one million. Some numbers are given in words, some in digits and some are partitioned.	
	Revisiting Whole Numbers: Children are reminded using the Lesson Presentation how to order the digits from right to left on a place value grid.	
	Composing Numbers with Decimals: Using the Lesson Presentation , demonstrate to the children that decimal numbers can be more easily understood when they are read from right to left on a place value grid.	
	Decimal Digits: Introduce the decimal place value grid shown on the Lesson Presentation . Model how to enter the digits from a number into the place value grid. Explain how we can use this method to identify the value of each digit. Can children use the place value grid to identify the value of each digit?	
	Which Key? Discuss how to open the padlocks by changing one of the digits to zero using the Lesson Presentation . Children choose the correct key to change the specified digit to zero on each of the following slides. Share and discuss the answers. Can the children identify how to alter specific digits in a decimal number? Can the children solve reasoning and problem-solving questions, identifying specific digits in a range of decimal numbers?	
 Numbers with one decimal place. Questions involve identifying digits in particular places. Numbers with two decimal places. Questions involve identifying digits in particular places, as well as some reasoning style questions. Numbers with two and three decimal places. Questions involve reasoning style questions about the value of the digits.	Decimal Digits Activity: Children match the correct keys and suitcases on the differentiated Decimal Digits Activity Sheet to solve place value problems involving decimal numbers. Can children solve puzzles and problems involving the value of the digits in a decimal number?	



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 identify the value of a digit in different decimal numbers. They then match decimal numbers to the correct statement, looking at the value of digits.



Children look at statements linked to the value of digits in decimal numbers and explain why they agree or disagree.



Children use clues to help them work out possible codes for a padlock, linked to the value of digits in a decimal number.

ExploreIt

CostIt: Use the _____ to identify the decimal numbers based on the value of their digits.

FindIt: Play this _____ to match the descriptions to the numbers.

LearnIt: Children will find this visually exciting _____ a useful tool for learning how to identify the place value of digits in numbers with up to 3 decimal places.