

Max's Magnificent Maths Lab: Mastering Place Value

Learning objective: To read, write, order and compare numbers up to 10,000,000 and determine the value of each digit.

Max the monkey has been busy counting all the stars and books in the library! Use this fact-file to help Max organise his large numbers. Read the prompts carefully, show your working out, and remember to check your place value columns (ones, tens, hundreds, thousands, ten thousands, hundred thousands, millions).

Word bank: Place value · Digit · Column · Millions · Value · Partition · Represent · Compare

1. Max found 4,821,509 shiny pebbles. Write this number in words and partition it into its different place value parts (e.g., 4,000,000 + 800,000...). (3 marks)

2. Look at the number 7,356,291. Identify the digit in the hundred thousands column and explain its value. (2 marks)

3. Max has two collections of items: Collection A is 2,450,800 and Collection B is 2,450,080. Which number is greater? Use the > or < symbol to compare them and explain your reasoning. (3 marks)

4. If Max adds £10,000 to the total of £5,672,400, what is his new total? Write the calculation and the final answer. (2 marks)

5. Create your own 7-digit number. Write it down, then swap the millions digit with the tens digit. What is the difference between your original number and your new number? (3 marks)

Extension challenge: Challenge: If Max had a number with a 5 in the millions place, a 0 in every other column except the ones column, what would his number be? Write it in digits and words.