

Max's Magnificent Number Laboratory

Learning objective: To read, write, order and compare numbers up to at least 1,000,000 and determine the value of each digit.

Max the monkey has been collecting large numbers from his jungle travels! Use this laboratory record to break down these big numbers into their place value components. Fill in the boxes to show you understand how much each digit is worth.

Word bank: Place value · Ten thousands · Hundred thousands · Partitioning · Digit · Value · Millions

1. The Big Number Reveal: Choose a 6-digit number and write it in the box below. Then, partition the number to show the value of each digit (e.g., $452,109 = 400,000 + 50,000 + 2,000 + 100 + 9$). (3 marks)

2. The Comparison Challenge: Write two different 6-digit numbers. Use the greater than (>) or less than (<) symbol to show which number is larger and explain how you know. (2 marks)

3. The Digit Detective: In your 6-digit number, identify which digit is in the 'ten thousands' column. What is the actual value of that specific digit? (2 marks)

4. Rounding Rules: Take your chosen 6-digit number and round it to the nearest 10,000. Show your working out. (2 marks)

5. Max's Mental Maths: If you add 100,000 to your original number, what is your new total? Explain what happens to the digit in the hundred thousands column. (2 marks)

Extension challenge: Try to write your 6-digit number in words. Can you create a 'Number Story' where your number represents something, such as the number of leaves in the jungle or the distance in metres Max travelled?