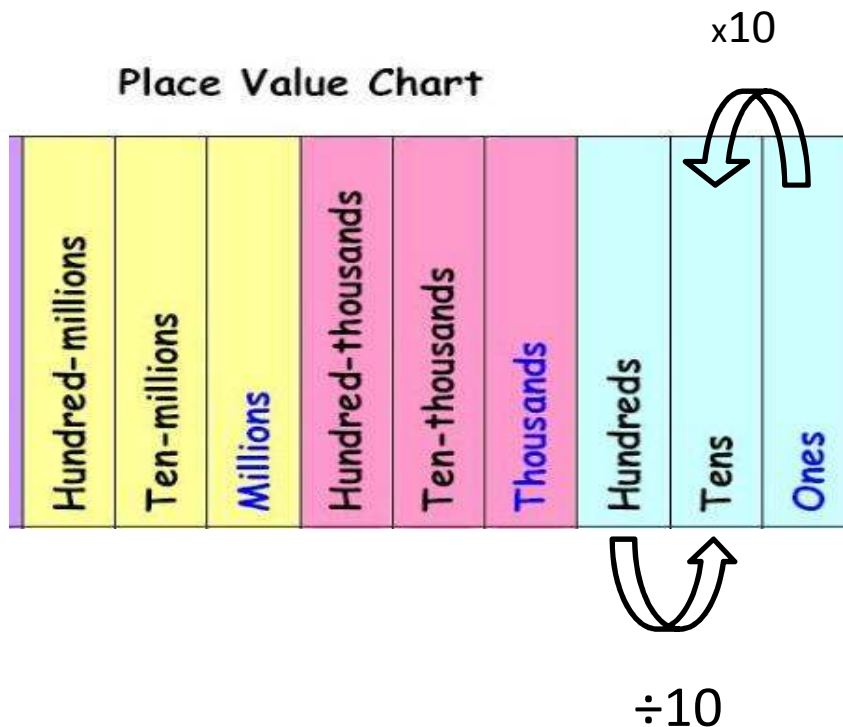# Grade 4
Place Value of Whole Numbers

Standards
- 4.NBT.1: Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to is right.
- 4.NBT.2: Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers base on meanings of the digits in each place, using >, =, < symbols to record the results of comparisons.
- 4NBT.3: Use place value understanding to round multi-digit whole numbers to any place.

Rationale
- Students gain a better understanding of our base-ten place value system. They investigate the relationship between the place value positions.
- Students are working to further build upon their numeracy literacy.
- Students are justifying the reasonableness of their mathematical solutions using estimating by rounding.

Big Ideas
- A <u>digit</u> is any one of the symbols 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 that are used to write numbers.

- The place position of a digit in a larger number affects the value of the digit.

- As you move along a place value chart from the right to the left, the value of each place is worth ten times more than the position to its right (for example, a 4 in the tens place is ten times more than a 4 in the ones column).

- As you move from the left to the right, the value of each place is worth ten times less than the place to its left.

x10

Place Value Chart

Hundred-millions	Ten-millions	Millions	Hundred-thousands	Ten-thousands	Thousands	Hundreds	Tens	Ones

÷10

Three Forms of Numbers

- **Word Form:** a number written using words
- **Standard Form:** a number written using digits
- **Expanded Form:** a number written, which shows the value of each individual digit (beginning with the largest place)

  Example:

  o **Standard Form:** $4,329,857$
  o **Word Form:** four million, three hundred twenty-nine thousand, eight hundred fifty-seven.
  o **Expanded Form:** 4,000,000 + 300,000 + 20,000 + 9,000 + 800 + 50 + 7

Comparing and Rounding

Comparing:

- Start at the largest place and move to the right, comparing each digit, one at a time.
- Use <, >, or = to compare numbers (example: 3,498,109 **<** 4,582,302)