Unit 1: Whole Numbers, Place Value, and Rounding in Computation

**Standards:**

**4.NBT.1** Recognize that in a multi-digit whole number, a digit in any one place represents ten times what it represents in the place to its right. For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.

**4.NBT.2** Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

**4.NBT.3** Use place value understanding to round multi-digit whole numbers to any place.

**4.NBT.4** Fluently add and subtract multi-digit whole numbers using the standard algorithm

**4.OA.3** Solve multi-step word problems with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a symbol or letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

**4.MD.2** Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

**Additional Resources:**

Graded Classwork & Quizzes

Handouts/Homework

Class Notes

**Textbook:**

Place Value (4.NBT.1) p.11-16Read & Write Multi-Digit Numbers (4.NBT.2) p.17-22

Compare Numbers (4.NBT.2) p.23-28
Order Numbers (4.NBT.2) p. 29-34
Use Place Value to Round (4.NBT.3) p. 37-42
Problem-Solving Investigation: Use the Four-Step Plan (4.NBT. 2&3) p. 43-48

**IXL:**

4.NBT.1:

A.1 [Place values](https://www.ixl.com/math/grade-4/place-values)

A.2 [Convert between place values](https://www.ixl.com/math/grade-4/convert-between-place-values)

4.NBT.2:

A.1 [Place values](https://www.ixl.com/math/grade-4/place-values)

A.3 [Word names for numbers](https://www.ixl.com/math/grade-4/word-names-for-numbers)

A.9 [Compare numbers up to one billion](https://www.ixl.com/math/grade-4/compare-numbers-up-to-one-billion)

B.6 [Addition patterns over increasing place values](https://www.ixl.com/math/grade-4/addition-patterns-over-increasing-place-values)

D.28 [Inequalities with multiplication](https://www.ixl.com/math/grade-4/inequalities-with-multiplication)

E.25 [Inequalities with division](https://www.ixl.com/math/grade-4/inequalities-with-division)

F.10 [Inequalities involving addition, subtraction, multiplication, and division](https://www.ixl.com/math/grade-4/inequalities-involving-addition-subtraction-multiplication-and-division)

4.NBT.3:

A.6 [Rounding](https://www.ixl.com/math/grade-4/rounding)

B.8 [Estimate sums](https://www.ixl.com/math/grade-4/estimate-sums)

B.9 [Estimate sums: word problems](https://www.ixl.com/math/grade-4/estimate-sums-word-problems)

C.6 [Estimate differences](https://www.ixl.com/math/grade-4/estimate-differences)

C.7 [Estimate differences: word problems](https://www.ixl.com/math/grade-4/estimate-differences-word-problems)

D.12 [Estimate products - multiply by 1-digit numbers](https://www.ixl.com/math/grade-4/estimate-products-multiply-by-1-digit-numbers)

D.13 [Estimate products - multiply by larger numbers](https://www.ixl.com/math/grade-4/estimate-products-multiply-by-larger-numbers)

E.14 [Divide by 1-digit numbers: estimate quotients](https://www.ixl.com/math/grade-4/divide-by-1-digit-numbers-estimate-quotients)

E.26 [Estimate quotients](https://www.ixl.com/math/grade-4/estimate-quotients)

4.NBT.4:

B.1 [Add numbers up to millions](https://www.ixl.com/math/grade-4/add-numbers-up-to-millions)

B.2 [Add numbers up to millions: word problems](https://www.ixl.com/math/grade-4/add-numbers-up-to-millions-word-problems)

B.3 [Addition: fill in the missing digits](https://www.ixl.com/math/grade-4/addition-fill-in-the-missing-digits)

B.5 [Add 3 or more numbers up to millions](https://www.ixl.com/math/grade-4/add-3-or-more-numbers-up-to-millions)

B.7 [Choose numbers with a particular sum](https://www.ixl.com/math/grade-4/choose-numbers-with-a-particular-sum)

C.1 [Subtract numbers up to millions](https://www.ixl.com/math/grade-4/subtract-numbers-up-to-millions)

C.2 [Subtract numbers up to millions: word problems](https://www.ixl.com/math/grade-4/subtract-numbers-up-to-millions-word-problems)

C.3 [Subtraction: fill in the missing digits](https://www.ixl.com/math/grade-4/subtraction-fill-in-the-missing-digits)

C.5 [Choose numbers with a particular difference](https://www.ixl.com/math/grade-4/choose-numbers-with-a-particular-difference)

4.OA.3:

F.3 [Estimate sums, differences, products, and quotients: word problems](https://www.ixl.com/math/grade-4/estimate-sums-differences-products-and-quotients-word-problems)

F.4 [Multi-step word problems](https://www.ixl.com/math/grade-4/multi-step-word-problems)

F.5 [Word problems with extra or missing information](https://www.ixl.com/math/grade-4/word-problems-with-extra-or-missing-information)

F.6 [Solve word problems using guess-and-check](https://www.ixl.com/math/grade-4/solve-word-problems-using-guess-and-check)

F.7 [Choose numbers with a particular sum, difference, product, or quotient](https://www.ixl.com/math/grade-4/choose-numbers-with-a-particular-sum-difference-product-or-quotient)

G.2 [Write variable expressions: word problems](https://www.ixl.com/math/grade-4/write-variable-expressions-word-problems)

G.5 [Write variable equations to represent word problems](https://www.ixl.com/math/grade-4/write-variable-equations-to-represent-word-problems)

K.1 [Find two numbers based on sum and difference](https://www.ixl.com/math/grade-4/find-two-numbers-based-on-sum-and-difference)

K.2 [Find two numbers based on sum, difference, product, and quotient](https://www.ixl.com/math/grade-4/find-two-numbers-based-on-sum-difference-product-and-quotient)