Number and Operations in Base Ten[1]
4.NBT.A*

[1] Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.

Cluster A

Generalize place value understanding for multi-digit whole numbers.

STANDARD 1 **4.NBT.A.1:** Recognize that in a multi-digit whole number, a digit in 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.*

STANDARD 2 **4.NBT.A.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.

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

*Major cluster

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Grade 4 Overview

Fourth graders extend their understanding of place value to 1,000,000. They develop an understanding of the relationship among places in a number, and they use that understanding to read and write numbers from 1 to 1,000,000. Writing numbers in expanded notation reinforces the relationship among places as well as how to decompose a number in various ways. Students compare numbers by focusing on the value of a digit in a given place. They extend earlier work with rounding numbers to rounding numbers to any given place and using rounding to estimate in real-life situations.

Standards for Mathematical Practice
SFMP 1. Make sense of problems and persevere in solving them.
SFMP 2. Use quantitative reasoning.
SFMP 3. Construct viable arguments and critique the reasoning of others.
SFMP 4. Model with mathematics.
SFMP 5. Use appropriate tools strategically.
SFMP 6. Attend to precision.
SFMP 7. Look for and make use of structure.
SFMP 8. Look for and express regularity in repeated reasoning.

Using models and quantitative reasoning will help students understand the relationship between places as the value of a digit moves to the left or to the right. A digit in the tens place is ten times as great as the same digit in the ones place. Understanding that as a place moves to the left it becomes ten times greater and as a place moves to the right it is one tenth the value is a fundamental structure of our place value system. Providing a variety of contexts for students to consider will help them to develop understanding. Using models for lesser numbers will help student to recognize patterns and make generalizations for working with larger numbers and for comparing numbers.

Students read and write numbers from 1 to 1,000,000 using precision and recognizing the structure of our number system. Recognizing and understanding the role of commas in written numbers and the regularity of the sequence of numbers between commons (hundreds, tens, ones) will help students "chunk" large numbers into smaller parts and become fluent in reading and writing numbers.

Proficient students use quantitative reasoning to round numbers to a given place. They realize that rounding numbers can be useful in solving problems and making sure their answers are reasonable. They can justify their thinking about rounding. They use the structure of the place value system to round numbers.

Related Content Standards

3.OA.C.8 4.OA.A.3 5.NBT.A.1 5.NBT.A.3 5.NBT.A.4