## Number and Operations in Base Ten

## Progression

| $3^{\text {td }}$ Grade | Students used place value to round to the nearest 10 or 100. They extended their <br> work with addition and subtraction to work fluently with these operations within $1,000$. <br> Students were not expected to master the standard algorithm for addition and <br> subtraction. |
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| $\mathbf{4}^{\text {th }}$ Grade | Students will extend their understanding of place value to know <br> that a digit in one place represents ten times what it represents in <br> the place to its right. The will use place value understanding to <br> compare and round whole numbers within 1,000,000. Students will <br> fluently use the standard algorithm to add and subtract whole <br> numbers by the end of 4 $\mathbf{4}^{\text {th }}$ grade. |
| $5^{\text {th }}$ Grade | Students will extend their understanding of place value to include comparing, <br> rounding, and performing operations on decimals. They will also learn to fluently <br> multiply whole numbers with the standard algorithm. |

## STUDENT LEARNING GOALS

## Mathematics Standards (Appendices A \& B)

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 its right. For example, recognize that $700 \div 70=10$ 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.

MP1: Make sense of problems and persevere in solving them.
MP6: Attend to Precision

| Interdisciplinary Standards |  |  | Key Vocabulary |
| :--- | :---: | :--- | :--- |
| Technology Integration <br> (Appendix C) | $\mathbf{2 1}^{\text {st }}$ Century Skills | Compare | Period |
| Expanded Form | Standard Form |  |  |
| IS1. Information Strategies <br> IS2. Information Use | TCS1. Use of Information | Greater Than (>) <br> Less Than (<) | Value |


| Enduring Understandings <br> - I can and write numbers using words, numerals, and expanded form. <br> - I can compare multi-digit whole numbers <br> - I can add and subtract multi-digit whole numbers <br> - I can round multi-digit whole numbers |  | Essential Questions <br> - What are the different wa <br> - How can I use place valu <br> - How can I use place value <br> - How can I use the standa subtract any whole numb | s of writing a number? to compare numbers? to round numbers? $d$ algorithm to add and rs? |
| :---: | :---: | :---: | :---: |
| Assessment Plan |  |  |  |
| Summative Assessment(s)/Performance Based Assessments including 21 ${ }^{\text {st }}$ Century Learning <br> RCC Interim Assessment, Student p. 34-35 RCC Performance Task, Student p. 36 |  | Formative and Diagnostic <br> STAR Math Assessment (Fa RCC Embedded Tasks and | ssessment(s) <br> ssessments |
| Learning Plan Components |  |  |  |
| Text Ready Common Core Mathematics Instruction 4, 2014, Curriculum Associates, <br> ISBN: 978-0-7609-8639-4 |  |  |  |
| Print Ready Com <br> ISBN: 978-0 | Ready Common Core Mathematics Teacher Resource Book 4, 2014, Curriculum Associates, ISBN: 978-0-7609-8646-2 |  |  |
| Electronic www.teacher <br> www.stratfor <br> www.xtram | www.teacher-toolbox.com www.stratfordmath.wikispaces.com www.xtramath.org |  |  |
| Week 1 | Students will: <br> - Create and correctly label a place-value chart <br> - Identify the value of a digit based on its location in the number <br> - Demonstrate how moving from one place-value position to the next changes the value by a multiple of ten <br> - Show that any number can be represented in different ways <br> - Use standard form, word form, and expanded form to read and write whole numbers |  |  |
| Lessons | Tasks / Activities | Worksheets | Technology |
| RCC Lesson 1: <br> Understand Place Value | Hands-On (p.7) <br> Formative (p.9) <br> Differentiated (p.10) <br> *Number Scramble <br> GA "Number Scramble" <br> SFTE: <br> 4A "Modeling Numbers in the Thousands" <br> 8A "Show Me a Million" <br> 22A "Cover with <br> Thousands" | *Writing Numbers Through <br> 1 Million <br> *Writing Numbers as <br> Words Through 1 Million <br> *Expanded Form to <br> Numeric Form Within 1 <br> Million <br> SF 1-1, 1-2, 1-3 | Teacher-Toolbox (1 Tutorial, 1 Tool for Instruction) |
| Week 2 Students will: <br> $\bullet$ |  |  |  |
| Lessons | Tasks / Activities | Worksheets | Technology |
| RCC Lesson 2: Compare Whole Numbers | Hands-On (p.12, 15) Differentiated (p.18) GA "Ticket Master" SFTE: 16B "Comparing Places and Values" | CC Practice (p.17) <br> *Comparing Numbers <br> Within 1,000,000 <br> SF 1-5 | $\begin{aligned} & \hline \text { Teacher-Toolbox (2 } \\ & \hline \text { Tutorials) } \end{aligned}$ |


|  Students W <br> Week 3 $\bullet$ <br>  $\bullet$ | Students will: <br> - Use the standard algorithm to add multi-digit whole numbers <br> - Use the standard algorithm to subtract multi-digit whole numbers |  |  |
| :---: | :---: | :---: | :---: |
| Lessons | Tasks / Activities | Worksheets | Technology |
| RCC Lesson 3: Add and Subtract Whole Numbers | Hands-On (p.21, 22, 24) Differentiated (p.28) GA Making Sense of the Algorithm SFTE: 62A "Make Tens to Add" | CC Practice (p.27) *Four Digit Plus Four Digit Addition <br> *4 Digit Minus 4 Digit SF 2-1, 2-5, 2-6, 2-7 (no decimals) | Teacher-Toolbox (1 Tutorial) |
|  Students will:  <br> Week 4 - Use appropriate tools to round multi-digit whole numbers  <br>  - Explain how a multi-digit whole number is rounded to a specific place value  |  |  |  |
| Lessons | Tasks / Activities | Worksheets | Technology |
| RCC Lesson 4: Round Whole Numbers | Hands-On (p.31, 33) Differentiated (p.36) SFTE: <br> 20A "Rounding with a Number Line" 20B "Using Colors to Round" | CC Practice (p.35) <br> *Rounding to Tens and Hundreds SF 1-6 (within 1,000,000) | Teacher-Toolbox (1 Tutorial, 2 Tools for Instruction) |
| Week 5 Students will: <br> $\bullet \quad$ Demonstrate mastery of objectives |  |  |  |
| Summative Assessment |  | Performance Task |  |
| RCC Unit 1 Interim Assessment -Student p. 34-35 -Scoring Guide (p. 37) |  | RCC Unit 1 Performance Task <br> -Student p. 36 <br> -Rubric (p. 38-39) |  |

