

Grade: 5 Unit: 1	Numbers and Operations In Base Ten	9 Weeks
---------------------	---	----------------

Progression

4th Grade	Students learned to: multiply two 2-digit numbers, as well as multiply and divide 4-digit numbers by 1-digit numbers (without remainders); round whole numbers to any place value; understand the decimal numbers (10^{ths} and 100^{ths}) in relation to fractions, and add decimal fractions of 10^{ths} 100^{ths} . Students also extended their work with addition and subtraction to numbers up to 1,000,000.
5th Grade	Students will learn to: see a number's place as 10 times larger or 10 times smaller than the place to the left or right; read, write, compare, and round decimals to the thousandths place; understand and use the standard algorithm to find the products of multi-digit numbers; apply the four operations to decimals to the hundredths place.
6th Grade	Students will extend their work by: demonstrating fluency with long division; demonstrating fluency in applying all four operations to multi-digit decimals; finding the greatest common factors and least common multiples of two numbers; learning about, ordering, and describing the meaning of negative numbers.

STUDENT LEARNING GOALS

Mathematics Standards (*Appendices A & B*)

5.NBT.A.1: Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents to its right and 1/10 of what it represents in the place to its left.

5.NBT.A.2: Explain patterns in the number of zeroes of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.

5.NBT.A.3: Read, write and compare decimals to the thousandths.

- a. Read and write decimals to the thousands using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1,000)$
- b. Compare two decimals to the thousandths based on meanings of the digits in each place, using $>$, $=$, $<$ symbols to record the results of comparison.

5.NBT.A.4: Use place value understanding to round decimals to any place.

5.NBT.B.5: Fluently multiply multi-digit whole numbers using the standard algorithm

5.NBT.B.6: Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit-divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

5.NBT.B.7: Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

SMP 1-8

		Key Vocabulary	
Technology Integration (Appendix C)	21st Century Skills (Appendix D)	Base Ten Compare Decimal Number Difference Distributive Property Dividend Division Divisor Estimate Expanded Form Exponent Expression Factor	Hundredth Inverse Multiplication Partial Product Place Value Power of ten Product Quotient Standard Algorithm Sum Tenth Thousandth
IS1. Information Strategies IS2. Information Use	TCS1. Use of Information TCS5. Problem Solving		

Enduring Understandings <ul style="list-style-type: none"> I can read and write decimals, for example : $10.63 = 10 + 6 \times 1/10 + 3 \times 1/100$ I can compare decimals, for example: $3.47 > 3.096$ I can round decimals, for example: 6.274 rounded to the nearest tenth is 6.3 I can multiply whole numbers, for example: $410 \times 16 = 6,560$ I can divide whole numbers, for example $2,812 \div 38 = 74$ I can add and subtract decimals, for example: $20.08 + 5.15 = 25.23$ I can multiply decimals, for example: $7.2 \times 9.4 = 67.68$ I can divide decimals, for example: $18.72 \div 3.6 = 5.2$ 	Essential Questions <ul style="list-style-type: none"> How can you read, write, compare, and round decimals? How do you multiply and divide whole numbers? How do you add, subtract, multiply, and divide decimals?
--	---

Assessment Plan	
Summative Assessment(s)/Performance Based Assessments including 21st Century Learning RCC Interim Assessment, Student p.82-83 RCC Performance Task, Student p.84	Formative and Diagnostic Assessment(s) STAR Math Assessment (Fall) RCC Embedded Tasks and Assessments

Learning Plan Components	
Text	Ready Common Core Mathematics Instruction 2 , 2014, Curriculum Associates, ISBN: 978-0-7609-8637-0
Print	Ready Common Core Mathematics Teacher Resource Book 2 , 2014, Curriculum Associates, ISBN: 978-0-7609-8644-8
Electronic	www.teacher-toolbox.com www.stratfordmath.wikispaces.com www.xtramath.org http://www.mathgoodies.com/standards/alignments/grade5.html http://www.mathworksheetsland.com/5/ http://ccss5.watchknowlearn.org/Category.aspx?CategoryID=15535 http://www.internet4classrooms.com/printables/common_core/math_mathematics_5th_fifth_grade/index.htm http://www.commoncoresheets.com/index.php

Week 1	Students will: <ul style="list-style-type: none"> Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents to its right and 1/10 of what it represents in the place to its left. 		
Lessons	Tasks / Activities	Worksheets	Technology
<u>RCC Lesson 1:</u> Understand Place Value TRB pp. 2-12	Trading Places Center RCC Hands on Activity p. 8 Intervention Activity p.12 On-Level Activity p. 12 Challenge Activity p. 12 Small Group iReady Tools for Instruction (RCC)	The Picnic Lunch SF 1-1 R, P, E, PS www.greatmathteachingideas.com	What's Your Name Interactive Lessons for Supporting Skills (RCC) "Decoding Decimals" exchange.smarttech.com "Place Value" exchange.smarttech.com "Decimal Patterns" exchange.smarttech.com
Week 2	Students will: <ul style="list-style-type: none"> Explain the relationship between numbers when multiplying or dividing by powers of ten. Explore the placement of the decimal point when multiplying or dividing by a power of ten. Use exponents to denote powers of ten. 		
Lessons	Tasks / Activities	Worksheets	Technology
<u>RCC Lesson 2:</u> Understand Powers of 10 TRB pp. 13-20	Hands on Activity p. 14 Hands on Activity p. 15 Intervention Activity p. 20 On-Level Activity p. 20 Challenge Activity p. 20 GA Patterns R Us GA Powers of 10 Yahtzee		Interactive Lessons for Supporting Skills (RCC) "Place Value Powers of Ten" exchange.smarttech.com "Everyday Math - Unit 7, Lesson 1" exchange.smarttech.com
Week 3	Students will: <ul style="list-style-type: none"> Read decimals to the thousandths place using base ten, number names, and expanded form. Write decimals to the thousandths place using base ten number names, and expanded form. 		
Lessons	Tasks / Activities	Worksheets	Technology
<u>RCC Lesson 3:</u> Read and Write Decimals TRB pp. 21-30	Hands on Activity p. 22 Hands on Activity p. 24 Assessment and Remediation p. 30 Hands on Activity p. 30 Challenge Activity p. 30 Small Group iReady Tools for Instruction (RCC) GA Decimal Designs	SF 1-3 R, P, E, PS	Interactive Lessons for Supporting Skills (RCC) "Reading, Writing, and Comparing Decimals" exchange.smarttech.com

Week 4	Students will: <ul style="list-style-type: none"> • Compare decimals to the thousandths place using base ten, number names, and expanded form. • Identify benchmark numbers (e.g. 0, 0.5, 1, 1.5). • Use benchmark number to compare and round numbers • Explain why a number is rounded to a given place value. 		
Lessons	Tasks / Activities	Worksheets	Technology
<u>RCC Lesson 4:</u> Compare and Round Decimals TRB pp. 31-40	Hands on Activity p. 32 Assessment and Remediation p. 40 Hands on Activity p. 40 Challenge p. 40 Small Group iReady Tools for Instruction (RCC) GA High Roller Revisited Version 1 GA Decimal Garden GA Decimal Line Up	SF 1-8 R, P, E, PS GA Batter Up (HW)	Interactive Lessons for Supporting Skills (RCC) "Rounding Whole Numbers and Decimals" exchange.smarttech.com
Week 5	Students will: <ul style="list-style-type: none"> • Rewrite a problem using strategies related to the distributive property or breaking numbers apart. • Solve a problem using the standard algorithm and/or strategies. 		
Lessons	Tasks / Activities	Worksheets	Technology
<u>RCC Lesson 5:</u> Multiply Whole Numbers TRB pp. 41-48	Hands on Activity p. 45 Assessment and Remediation p. 48 Hands on Activity p. 48 Challenge p. 48	SF 2-4 R, P, E, PS	Interactive Lessons for Supporting Skills (RCC)
Week 6	Students will: <ul style="list-style-type: none"> • Use strategies to divide up to four-digit dividends by two-digit divisors, such as place value and repeated subtractions. • Explain the relationship between multiplication and division. • Illustrate and explain division using equations, rectangular arrays and area models. 		
Lessons	Tasks / Activities	Worksheets	Technology
<u>RCC Lesson 6:</u> Divide Whole Numbers TRB pp. 49-56	Hands on Activity p. 52 Assessment and Remediation p. 56 Hands on Activity p. 56 Challenge Activity p. 56		Interactive Lessons for Supporting Skills (RCC) "Divisibility Rules" exchange.smarttech.com

Week 7	Students will: <ul style="list-style-type: none"> • Add decimals to the hundredths. • Subtract decimals to the hundredths. • Explain how to add and subtract decimals to the hundredths. 		
Lessons	Tasks / Activities	Worksheets	Technology
<u>RCC Lesson 7:</u> Add and Subtract Decimals TRB pp. 57-66	Hands on Activity p. 58 Assessment and Remediation p. 66 Hands on Activity p. 66 Challenge Activity p. 66 GA Ten is the Winner GA Rolling Around with Decimals GA Check This	SF 1-12 R, P, E, PS SF 1-13 R, P, E, PS	Interactive Lessons for Supporting Skills (RCC) "Decimals Math" exchange.smarttech.com
Week 8	Students will: <ul style="list-style-type: none"> • Multiply decimals to hundredths. • Explain how to multiply decimals to hundredths. 		
Lessons	Tasks / Activities	Worksheets	Technology
<u>RCC Lesson 8:</u> Multiply Decimals TRB pp. 67-76	Hands on Activity p. 73 Assessment and Remediation p. 76 Hands on Activity p. 76 Challenge Activity p. 76 Small Group iReady Tools for Instruction (RCC) GA Multiplication Teasers GA Place the Point	SF 2-9 to 2-11 R, P, E, PS www.mathinenglish.com	Interactive Lessons for Supporting Skills (RCC) "Multiplying Decimals" exchange.smarttech.com "Multiplying Whole Numbers and Decimals" exchange.smarttech.com "Everyday Math - Grade 5 - Unit 2 - Lesson 8" exchange.smarttech.com
Week 9	Students will: <ul style="list-style-type: none"> • Divide decimals to hundredths. • Explain how to divide decimals to hundredths. 		
Lessons	Tasks / Activities	Worksheets	Technology
<u>RCC Lesson 9:</u> Divide Decimals TRB pp. 77-91	Hands on Activity p. 80 Hands on Activity p. 84 Assessment and Remediation p. 88 Hands on Activity p. 88 Challenge Activity p. 88 Small Group iReady Tools for Instruction (RCC) GA Do you See an Error GA Teacher for a Day	www.mathinenglish.com	Interactive Lessons for Supporting Skills (RCC) "Dividing Decimals by Whole Numbers" exchange.smarttech.com
Summative Assessment		Performance Task	
RCC Unit 1 Interim Assessment -Student pp. 82-83 -Scoring Guide (TRB p. 89)		RCC Unit 1 Performance Task -Student p. 84 -Rubric (TRB pp. 90-91)	