2012-2013 Quarter 1 - 5 th Grade Math Rubric						
Mathematics						
Rubric Key: Standards introduced and assessed Standards maintained and assessed as needed						
Operations and Algebraic Thinking						
		Write and interpret n	umerical expressions.			
Standard	4	3	2	1	Notes	
MCC5.OA.1 Use	Uses and evaluates	Consistently <u>uses</u> and	Shows progress, but	Shows minimal progress	For example, evaluate	
parentheses, brackets, or	problems with	evaluates problems with	inconsistently <u>uses</u> and	or does not <u>use</u> and	the numerical	
braces in numerical	parentheses, brackets,	parentheses, brackets,	evaluates problems with	evaluate problems	expression:	
expressions, and	and braces with no	and braces with few	including parentheses,	including parentheses,	2 x [(9x4) - (17 -6)] = 50	
evaluate expressions	procedural or	procedural or	brackets, and braces.	brackets, and braces.		
with these symbols.	computational errors.	computational errors.			-	
MCC5.OA.2 Write simple	Communicates	Consistently	Shows progress, but	Shows minimal progress	For example, express the	
expressions that record	mathematical ideas	communicates	inconsistently	or does not	calculation "add 8 and 7,	
calculations with	precisely by <u>writing</u>	mathematical ideas	communicates	communicate	then multiply by 2" as $2 \times$	
numbers, and interpret	simple expressions that	precisely by writing	mathematical ideas	mathematical ideas	(8 + 7). Recognize that 3	
numerical expressions	record calculations with	simple expressions that	precisely by <u>writing</u>	precisely by <u>writing</u>	× (18932 + 921) is three	
without evaluating	numbers, and <u>interpret</u>	record calculations with	simple expressions that	simple expressions that	times as large as 18932 +	
them.	numerical expressions.	numbers, and <u>interpret</u>	record calculations with	record calculations with	921, without having to	
		numerical expressions	numbers, and <u>interpret</u>	numbers, and <u>interpret</u>	calculate the indicated	
		with few computational	numerical expressions.	numerical expressions.	sum or product.	
		or procedural errors.				
		Number & Opera	itions in Base Ten			
Cton doud			lace value system.	1	Natas	
Standard	4	3	Chause programs but		Notes	
that in a multi digit	Analyzes the effect off	offect on the product	inconsistently analyzes	or doos not analyze the		
undum a multi-uigit	the product when a	when a number is	the effect on the product	of does not <u>analyze</u> the		
number, a uigit in one		when a number is	when a number is	when a number is		
times as much as it	10, 100, 1000, 0.1, dild	1000 0 1 and 0 01 with	multiplied by 10, 100	multiplied by 10, 100		
represents in the place	or computational arrest	fow computational or	$\frac{110100001}{1000001}$	$\frac{110100001}{100001}$		
to its right and 1/10 of	or computational errors.	new computational of	1000, 0.1, allu 0.01	1000, 0.1, and 0.01		
what it represents in the		procedural errors.				
place to its left						

Number & Operations in Base Ten						
Understand the place value system.						
Standard	4	3	2	1	Notes	
MCC5.NBT.2 Explain	Explain the patterns in	Consistently explains the	Shows progress, but	Shows minimal progress	Make sure to use	
patterns in the number of	the number of zeros and	patterns in the number	inconsistently <u>explains</u>	or does not <u>explain</u> the	concepts of exponential	
zeros of the product when	placement of decimals	of zeros and <u>placement</u>	the patterns in the	patterns in the number	notation.	
multiplying a number by	in multiplication or	of decimals in	number of zeros and	of zeros and <u>placement</u>		
powers of 10, and explain	division problems when	multiplication or division	placement of decimals	of decimals in	Be sure to use whole-	
patterns in the placement	multiplying or dividing	problems when	in multiplication or	multiplication or division	number exponents to	
of the decimal point when	by a power of 10 (10,	<u>multiplying</u> or <u>dividing</u>	division problems when	problems when	denote powers of 10.	
a decimal is multiplied or	100, 1,000, 0.1, 0.01,	by a power of 10 (10,	<u>multiplying</u> or <u>dividing</u>	<u>multiplying</u> or <u>dividing</u>		
divided by a power of 10.	0.001) with no	100, 1,000, 0.1, 0.01,	by a power of 10 (10,	by a power of 10 (10,		
Use whole-number	procedural or	0.001) with few	100, 1,000, 0.1, 0.01,	100, 1,000, 0.1, 0.01,		
exponents to denote	computational errors.	procedural or	0.001).	0.001).		
powers of 10.		computational errors.				
MCC5.NBT.3 Read, write,	Read and write decimals	Consistently <u>reads</u> and	Shows progress, but	Shows minimal progress	Standard has been	
and compare decimals to	to thousandths place	writes decimals to	inconsistently <u>reads</u> and	or does not <u>read</u> and	separated due to	
thousand ths.	value <u>using</u> base-ten	thousandths place value	writes decimals to	write decimals to	complexity and length.	
a. Read and write decimals	numerals, number	<u>using</u> base-ten	thousandths place value	thousandths place value		
to thousandths using base-	names, and expanded	numerals, number	<u>using</u> base-ten	<u>using</u> base-ten	MCC5.NBT.3a	
ten numerals, number	form with no procedural	names, and expanded	numerals, number	numerals, number	347.392 = 3 × 100 + 4 ×	
names, and expanded	errors.	form with few	names, and expanded	names, and expanded	$10 + 7 \times 1 + 3 \times (1/10) +$	
form.		procedural errors.	form.	form.	9 × (1/100) + 2 ×	
					(1/1000).	
MCC5.NBT.3 Read, write,	Compares two decimals	Consistently compares	Shows progress, but	Shows minimal progress		
and compare decimals to	to thousandths based on	two decimals to	inconsistently <u>compares</u>	or does not <u>compare</u>		
thousand ths.	meanings of the digits in	thousandths based on	two decimals to	two decimals to		
b. Compare two decimals	each place, <u>using</u> >, =,	meanings of the digits in	thousandths based on	thousandths based on		
to thousandths based on	and < symbols to <u>record</u>	each place, <u>using</u> >, =,	meanings of the digits in	meanings of the digits in		
meanings of the digits in	the results of	and < symbols to <u>record</u>	each place, <u>using</u> >, =,	each place, <u>using</u> >, =,		
each place, using >, =, and	comparisons with no	the results of	and < symbols to <u>record</u>	and < symbols to <u>record</u>		
< symbols to record the	procedural errors.	comparisons with few	the results of	the results of		
results of comparisons.		procedural errors.	comparisons.	comparisons.		



Number & Operations in Base Ten						
Understand the place value system.						
Standard	4	3	2	1	Notes	
MCC5.NBT.4 Use place	Uses place value	Consistently <u>uses</u> place	Shows progress, but	Shows minimal progress		
value understanding to	understanding to <u>round</u>	value understanding to	inconsistently <u>uses</u> place	or does not <u>use</u> place		
round decimals to any	decimals to any place	round decimals to any	value understanding to	value understanding to		
place.	with no procedural	place with few	<u>round</u> decimals to any	round decimals to any		
	errors.	procedural errors.	place.	place.		
	Perform operati	ions with multi-digit whole	numbers and with decimal	s to hundredths.		
MCC5.NBT.5 Fluently	Solves multi-digit	Consistently solves	Shows progress, but	Shows minimal progress	Fluency has been	
multiply multi-digit	multiplication problems	multi-digit multiplication	inconsistently <u>solves</u>	or does not use	interpreted to mean	
whole numbers using	with no procedural or	problems with few	multi-digit multiplication	strategies to <u>solve</u> multi-	that a student solves	
the standard algorithm.	computational errors.	procedural or	problems.	digit multiplication	multi-digit multiplication	
		computational errors.		problems.	problems effortlessly	
					and correctly most of	
					the time.	
MCC5.NBT.6 Find	<u>Finds</u> whole-number	Consistently <u>finds</u>	Shows progress, but	Shows minimal progress	Explore the meaning of	
whole-number quotients	quotients of whole	whole-number quotients	inconsistently <u>finds</u>	or does not <u>find</u> whole-	divisibility as a situation	
of whole numbers with	numbers with up to	of whole numbers with	whole-number quotients	number quotients of	with no remainder,	
up to four-digit	four-digit dividends and	up to four-digit	of whole numbers with	whole numbers with up	analyze divisibility, and	
dividends and two digit	two digit divisors with	dividends and two digit	up to four-digit	to four-digit dividends	informally explain	
divisors, using strategies	no procedural or	divisors with few	dividends and two digit	and two digit divisors.	divisibility relationships.	
based on place value,	computational errors.	procedural or	divisors.			
the properties of		computational errors.		*See note.	*Ensure use of	
operations, and/or the	*See note.		*See note.		strategies based on	
relationship between		*See note.			place value, the	
multiplication and					properties of	
division. Illustrate and					operations, and/or the	
explain the calculation					relationship between	
by using equations,					multiplication and	
rectangular arrays,					division. Illustrate and	
and/or area models.					explain the calculation	
					by using equations,	
					rectangular arrays,	
					and/or area models.	

Number & Operations in Base Ten						
Perform operations with multi-digit whole numbers and with decimals to hundredths.						
Standard	4	3	2	1	Notes	
MCC5.NBT.7 Add,	<u>Adds, subtracts,</u>	Consistently <u>adds,</u>	Shows progress, but	Shows minimal progress	Ensure use of concrete	
subtract, multiply, and	multiplies and divides	subtracts, multiplies and	inconsistently <u>adds,</u>	or does not <u>add,</u>	models or drawings and	
divide decimals to	decimals with no	divides decimals with	subtracts, multiplies and	subtract, multiply and	strategies based on	
hundredths, using	procedural or	few procedural or	<u>divides</u> decimals.	<u>divide</u> decimals.	place value, properties	
concrete models or	computational errors.	computational errors.			of operations, and/or	
drawings and strategies					the relationship	
based on place value,					between addition and	
properties of					subtraction; relate the	
operations, and/or the					strategy to a written	
relationship between					method and explain the	
addition and					reasoning used.	
subtraction; relate the						
strategy to a written						
method and explain the						
reasoning used.						

