Standards Based Math Benchmark Analysis, January 2014

Grade Level	Strand	Standard	Description	Information
Kindergarten	Counting & Cardinality	K.CC.1	Count to 100 by ones and **by tens**.	
	Operations and Algebraic Thinking	K.OA.2	Solve addition and subtraction word problems, and add and subtract within ten, e.g., **by using objects** or drawings to represent the problem.	
	Measurement and Data	K.MD.1	Describe measureable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	
1st Grade	Operations and Algebraic Thinking	1.OA.6	Add and subtract within 20, **demonstrating fluency for addition** and subtraction **within 10**. Use strategies such as counting on, making ten, using the relationship between addition and subtraction, and creating equivalent but easier or known sums.	
	Number and Operations in Base Ten	1.NBT.1	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	**Counting by 2's**
		2nd Grade Readiness	Identify the value of coins or combinations of coins.	
2nd Grade	Operations and Algebraic Thinking	2.OA.2	**Fluently add and subtract within 20** using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.	
	Number and Operations in Base Ten	2.NBT.7	**Add and subtract within 1000**, 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. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	This is a new requirement, previously taught at a higher grade level.
3rd Grade	Measurement & Data	3.MD.1	Tell and write time to the nearest minute and measure time intervals in minutes. **Solve word problems involving addition and subtraction of time intervals** in minutes.	This is a new requirement, previously taught at a lower grade level.
		3.MD.3	**Draw a scaled picture graph and a scaled bar graph to**	

			represent a data set with several categories. Solve one and two step "how many more" and "how many less" problems using information presented in scaled bar graphs.	
	Operations and Algebraic Thinking	3.OA.8	**Solve two step word problems using the four operations**. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	
4th Grade	Operations and Algebraic Thinking	4.OA.4	**Find all factor pairs for a whole number in the range 1–100**. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.	This is a new requirement, previously taught at a higher grade level.
	Number and Operations in Base Ten	4.NBT.3	Use place value understanding to round multi-digit whole numbers to any place.	
	Geometry	4.G.2	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category and, and identify right triangles.	"Recognize right triangles as a category and, and identify right triangles" is a new requirement. This was previously taught at a higher grade level.
5TH Grade	Number and Operations in Base Ten	5.NBT.2	Explain patterns in the number of zeros 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.	This is a new requirement, previously taught at a higher grade level.
	Number and Operations in Base Ten	5.NBT.3	Read, write, and compare decimals to thousandths.	
	Geometry	5.G.3	Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.	This is a new requirement, previously taught at a lower grade level.
6th Grade	The Number System	6.NS.4	Find the greatest common factor of two whole numbers less that or equal to 100 and the least common multiple of two whole numbers less than or	

			equal to 12. Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor.	
	The Number System	6.NS.5	Understand that positive and negative numbers are used to together to describe quantities having opposite directions or values, use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.	
	Statistics and Probability	6.SP.1	Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers.	New content, and was not previously required. (This is not taught until Unit 7.)
	Statistics and Probability	6.SP.2	Understand that a set of data collected to answer a statistical question has a distribution, which can be described by its center, spread, and overall shape.	New content, and was not previously required. (This is not taught until Unit 7.)
	Statistics and Probability	6.SP.3	Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	(This is not taught until Unit 7.)
	Statistics and Probability	6.SP.4	Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	(This is not taught until Unit 7.)
	Statistics and Probability	6.SP.5a	Summarize numerical data sets in relation to their context, such as by: Reporting the number of observations.	(This is not taught until Unit 7.)
	Statistics and Probability	6.SP.5c	Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.	Includes new content, some of which was not previously required. (This is not taught until Unit 7.)
7th Grade	Geometry	7.G.5	Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown	This is a new requirement, previously taught at a higher grade level.

			angle in a figure.	
	Statistics and Probability	7.SP.3	Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability.	New content, and was not previously required.
	Statistics and Probability	7.SP.7	Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.	
8th Grade	Expressions and Equations	8.EE.2	Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that √2 is irrational.	
	Expressions and Equations	8.EE.8	Analyze and solve pairs of simultaneous linear equations.	This is a new requirement, previously taught at a higher grade level.
	Functions	8.F.4	Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (*x, y*) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.	