KSDE Mathematics – 2005 Standards

GRADE 4 INDIVIDUAL TEACHER CONTENT / CONFIDENCE SURVEY : MATHEMATICS

DIRECTIONS: Every teacher in the school should answer **Self Assessment Question A and B** by indicating **1, 2, 3, or 4** under columns **A and B** for each indicator on the tables below.

Note: All teachers (classroom, special education, Title I, art, p.e., etc.) are asked to complete this survey for the school because improving achievement on the state assessments is the responsibility of all teachers in the building, not just the teacher at the grade level that the assessment is given.

Self-Assessment A: Content Expertise

What is your level of content expertise or knowledge for each of the assessed indicators?

1. Surface Understanding — **4.** Deep Understanding

Self-Assessment B: Confidence Teaching Assessed Indicators

How confident are you with your ability to deliver instruction that firmly and richly fits (aligns) with each of the assessed indicators?

1. Not Confident — **4.** Highly Confident

Knowledge Base Indicators: *Statements of mathematical facts, concepts, and/or procedures, which a student should know and/or be able to do.*	A				B			
	1	**2**	**3**	**4**	**1**	**2**	**3**	**4**
1.2.K1 identifies, models, reads, and writes numbers using numerals, words, and expanded notation from hundredths place through one-hundred thousands place								
1.2.K5a-d uses the concepts of these properties with the whole number system and demonstrates their meaning including the use of concrete objects: a) commutative properties of addition and multiplication; b) zero property of addition (additive identity) and property of one for multiplication (multiplicative identity); c) associative properties of addition and multiplication; d) symmetric property of equality applied to addition and multiplication								
1.4.K6a-d shows the relationship between these operations with the basic fact families (addition facts with sums from 0 through 20 and corresponding subtraction facts, multiplication facts from 1 x 1 through 12 x 12 and corresponding division facts) including the use of mathematical models: a) addition and subtraction; b) addition and multiplication; c) multiplication and division; d) subtraction and division								
2.2.K2a-c solves one-step equations using whole numbers with one variable and a whole number solution that: a) find the unknown in a multiplication or division equation based on the multiplication facts from 1 x 1 through 12 x 12 and corresponding division facts: b) find the unknown in a money equation using multiplication and division based upon the facts and addition and subtraction with values through $10; c) find the unknown in a time equation involving whole minutes, hours, days, and weeks with values through 200								
2.3.K2 finds the values, determines the rule, and states the rule using symbolic notation with one operation of whole numbers from 0 through 200 using a horizontal or vertical function table (input/output machine, T-table)								
3.2.K2a-e selects, explains the selection of, and uses measurement tools, units of measure, and degree of accuracy appropriate for a given situation to measure: a) length, width, and height to the nearest fourth of an inch or to the nearest centimeter; b) volume to the nearest cup, pint, quart, or gallon; to the nearest liter; or to the nearest whole unit of a nonstandard unit; c)weight to the nearest ounce or pound or to the nearest whole unit of a nonstandard unit of measures; d) temperature to the nearest degree; e) time including elapsed time								
3.3.K2 recognizes, performs, and describes one transformation (reflection/flip, rotation/turn, translation/slide) on a two-dimensional figure or concrete object								
3.4.K3 identifies and plots as whole number ordered pairs in the first quadrant of coordinate plane (coordinate grid)								
4.2.K1a-i organizes, displays, and reads numerical (quantitative) and non-numerical (qualitative) data in a clear, organized, and accurate manner including a title, labels, categories, and whole number intervals using these data displays: a) graphs using concrete objects; b) pictographs with a symbol or picture representing one, two, five, ten, twenty-five, or one-hundred including partial symbols when the symbol represents an even amount; c) frequency tables (tally marks); d) horizontal and vertical bar graphs; e) Venn diagrams or other pictorial display; f) line plots; g) charts and tables; h) line graphs; i) circle graphs								

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Application Indicators: *Statements, which describe how the mathematical knowledge base should be used or applied to a real-world situation. These indicators ask a student to translate between various representations of facts, concepts, or procedures, make inferences by using deductive, inductive, proportional or spatial reason, formulate problems, and solve problems generated from situations which the student may or may not have seen before.*	A				B			
	1	**2**	**3**	**4**	**1**	**2**	**3**	**4**
1.4.A1a-e solves one- and two-step real-world problems with one or two operations using these computational procedures: a) adds and subtracts whole numbers from 0 through 10,000 and when used as monetary amounts; b) multiplies through a two-digit whole number by a two-digit whole number; c) multiplies whole dollar monetary amounts (up through three-digit) by a one- or two-digit whole number; d) multiplies monetary amounts less than $100 by whole numbers less than ten; e) figures correct change through $20.00								
2.3.A1 represents and describes mathematical relationships between whole numbers from 0 through 1,000 using concrete objects, pictures, written descriptions, symbols, equations, tables, and graphs								
3.1.A2 identifies the plane figures (circles, squares, rectangles, triangles, ellipses, rhombi, octagons, hexagons, pentagons, trapezoids) used to form a composite figure								
3.2.A2 estimates to check whether or not measurements and calculations for length, width, weight, volume, temperature, time and perimeter in real-world problems are reasonable								
4.2.A2a-e uses these statistical measures of a data set using whole numbers from 0 through 1,000 with less than ten whole number data points to make reasonable inferences and predictions, answer questions, and make decisions: a) minimum and maximum values; b) range; c) mode; d) median when the data set has an odd number of data points; e) mean when the data set has a whole number mean								