

**2010 Mathematics Textbooks and Instructional Materials Committee Member
Correlation to the 2009 Mathematics Standards of Learning and Curriculum Framework – Grade 4**

Text/Instructional Material Title: Math Expressions

Publisher: Houghton Mifflin Harcourt

Section I. Correlation with the Mathematics 2009 SOL and Curriculum Framework	Rating		
	Adequate	Limited	No Evidence
4.1	X		
4.2	X		
4.3	X		
4.4	X		
4.5	X		
4.6	X		
4.7	X		
4.8	X		
4.9	X		
4.10	X		
4.11	X		
4.12	X		
4.13	X		
4.14	X		
4.15	X		
4.16	X		

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Section II. Additional Criteria: Instructional Planning and Support	Rating		
	Adequate	Limited	No Evidence
1. Materials emphasize the use of effective instructional practices and learning theory.	X		
a. Students are guided through critical thinking and problem-solving approaches.	X		
b. Concepts are introduced through concrete experiences that use manipulatives and other technologies.	X		
c. Multiple opportunities are provided for students to develop and apply concepts through the use of calculators, computers, and other technologies.		X	
d. Students use the language of mathematics including specialized vocabulary and symbols.	X		
e. Students use a variety of representations (graphical, numerical, symbolic, verbal, and physical) to connect mathematical concepts.		X	
2. The mathematics content is significant and accurate.	X		
a. Materials are presented in an organized, logical manner which represents the current thinking on how students learn mathematics.	X		
b. Materials are organized appropriately within and among units of study.	X		
c. Format design includes titles, subheadings, and appropriate cross-referencing for ease of use.	X		
d. Writing style, length of sentences, vocabulary, graphics, and illustrations are appropriate.	X		
e. Level of abstraction is appropriate, and practical/real-life examples, including careers, are provided.		X	
f. Sufficient applications are provided to promote depth of application.		X	
3. Materials present content in an accurate, unbiased manner.	X		

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Mathematics Standard of Learning	Rating Scale Please indicate the rating for each by placing an X in the appropriate cell.		
	Adequate	Limited	No Evidence
4.1 The student will			
a) identify orally and in writing the place value for each digit in a whole number expressed through millions;	X		
b) compare two whole numbers expressed through millions, using symbols (>, <, or =); and	X		
c) round whole numbers expressed through millions to the nearest thousand, ten thousand, and hundred thousand.	X		
Comments: Provide comments to support “limited” or “no evidence” ratings.			

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Mathematics Standard	Rating Scale Please indicate the rating for each by placing an X in the appropriate cell.		
	Adequate	Limited	No Evidence
4.2 The student will			
a) compare and order fractions and mixed numbers;	X		
b) represent equivalent fractions; and	X		
c) identify the division statement that represents a fraction.	X		
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Mathematics Standard	Rating Scale Please indicate the rating for each by placing an X in the appropriate cell.		
	Adequate	Limited	No Evidence
4.3 The student will			
a) read, write, represent, and identify decimals expressed through thousandths;	X		
b) round decimals to the nearest whole number, tenth, and hundredth;	X		
c) compare and order decimals; and	X		
d) given a model, write the decimal and fraction equivalents.	X		
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		Adequate	Limited	No Evidence
4.4	The student will			
	a) estimate sums, differences, products, and quotients of whole numbers;	X		
	b) add, subtract, and multiply whole numbers;	X		
	c) divide whole numbers, finding quotients with and without remainders; and	X		
	d) solve single-step and multistep addition, subtraction, and multiplication problems with whole numbers.	X		
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		Adequate	Limited	No Evidence
4.5	The student will			
	a) determine common multiples and factors, including least common multiple and greatest common factor of up to two fractions;	X		
	b) add and subtract fractions having like and unlike denominators that are limited to 2, 3, 4, 5, 6, 8, 10, and 12, and simplify the resulting fractions, using common multiples and factors;	X		
	c) add and subtract with decimals; and	X		
	d) solve single-step and multistep practical problems involving addition and subtraction with fractions and with decimals.		X	
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		Adequate	Limited	No Evidence
4.6	The student will			
	a) estimate and measure weight/mass and describe the results in U.S. Customary and metric units as appropriate; and	X		
	b) identify equivalent measurements between units within the U.S. Customary system (ounces, pounds, and tons) and between units within the metric system (grams and kilograms).	X		
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		Adequate	Limited	No Evidence
4.7	The student will			
	a) estimate and measure length, and describe the result in both metric and U.S. Customary units; and	X		
	b) identify equivalent measurements between units within the U.S. Customary system (inches and feet; feet and yards; inches and yards; yards and miles) and between units within the metric system (millimeters and centimeters; centimeters and meters; and millimeters and meters).	X		
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		Adequate	Limited	No Evidence
4.8	The student will			
	a) estimate and measure liquid volume and describe the results in U.S. Customary units; and	X		
	b) identify equivalent measurements between units within the U.S. Customary system (cups, pints, quarts, and gallons).	X		
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	Adequate	Limited	No Evidence
4.9 The student will determine elapsed time in hours and minutes within a 12-hour period.	X		
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	Adequate	Limited	No Evidence
4.10 The student will			
a) identify and describe representations of points, lines, line segments, rays, and angles, including endpoints and vertices; and	X		
b) identify representations of lines that illustrate intersection, parallelism, and perpendicularity.	X		
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	Adequate	Limited	No Evidence
4.11 The student will			
a) investigate congruence of plane figures after geometric transformations, such as reflection, translation, and rotation, using mirrors, paper folding, and tracing; and	X		
b) recognize the images of figures resulting from geometric transformations, such as translation, reflection, and rotation.	X		
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	Adequate	Limited	No Evidence
4.12 The student will			
a) define <i>polygon</i> ; and	X		
b) identify polygons with 10 or fewer sides.	X		
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	Adequate	Limited	No Evidence
4.13 The student will			
a) predict the likelihood of an outcome of a simple event; and	X		
b) represent probability as a number between 0 and 1, inclusive.	X		
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	Adequate	Limited	No Evidence
4.14 The student will collect, organize, display, and interpret data from a variety of graphs.	X		
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	Adequate	Limited	No Evidence
4.15 The student will recognize, create, and extend numerical and geometric patterns.	X		
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	Adequate	Limited	No Evidence
4.16 The student will			
a) recognize and demonstrate the meaning of equality in an equation; and	X		
b) investigate and describe the associative property for addition and multiplication.	X		
Comments: Provide comments to support “limited” or “no evidence” ratings.			