

**2010 Mathematics Textbooks and Instructional Materials Committee Member  
Correlation to the 2009 Mathematics Standards of Learning and Curriculum Framework – Grade 8**

**Text/Instructional Material Title: Big Ideas Math 8 Virginia Edition**

**Publisher: Big Ideas Learning, LLC**

Section I. Correlation with the Mathematics 2009 SOL and Curriculum Framework	Rating		
	Adequate	Limited	No Evidence
8.1		x	
8.2	x		
8.3	x		
8.4	x		
8.5	x		
8.6	x		
8.7	x		
8.8	x		
8.9	x		
8.10	x		
8.11	x		
8.12	x		
8.13	x		
8.14	x		
8.15	x		
8.16	x		
8.17	x		

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

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	<b>Adequate</b>	<b>Limited</b>	<b>No Evidence</b>
8.1 The student will			
a) simplify numerical expressions involving positive exponents, using rational numbers, order of operations, and properties of operations with real numbers; and		x	
b) compare and order decimals, fractions, percents, and numbers written in scientific notation.	x		
<p><b>Comments: Provide comments to support “limited” or “no evidence” ratings.</b></p> <p>Assumes that students have prior knowledge of order of operations and the one example on pg. 61 and pg. 355 is inadequate to teach this skill.</p>			

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	Adequate	Limited	No Evidence
8.2 The student will describe orally and in writing the relationships between the subsets of the real number system.	x		
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	Adequate	Limited	No Evidence
8.3 The student will			
a) solve practical problems involving rational numbers, percents, ratios, and proportions; and	x		
b) determine the percent increase or decrease for a given situation.	x		
<p><b>Comments: Provide comments to support “limited” or “no evidence” ratings.</b></p> <p>Limited evidence in textbook of consumer checkbook problems.</p>			

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	Adequate	Limited	No Evidence
8.4 The student will apply the order of operations to evaluate algebraic expressions for given replacement values of the variables.	x		
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	Adequate	Limited	No Evidence
8.5 The student will			
a) determine whether a given number is a perfect square; and	x		
b) find the two consecutive whole numbers between which a square root lies.	x		
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	Adequate	Limited	No Evidence
8.6 The student will			
a) verify by measuring and describe the relationships among vertical angles, adjacent angles, supplementary angles, and complementary angles; and	x		
b) measure angles of less than 360°.	x		
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	Adequate	Limited	No Evidence
8.7 The student will			
a) investigate and solve practical problems involving volume and surface area of prisms, cylinders, cones, and pyramids; and	<b>x</b>		
b) describe how changing one measured attribute of a figure affects the volume and surface area.	<b>x</b>		
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	Adequate	Limited	No Evidence
8.8 The student will			
a) apply transformations to plane figures; and	x		
b) identify applications of transformations.	x		
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8.9 The student will construct a three-dimensional model, given the top or bottom, side, and front views.	x		
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	Adequate	Limited	No Evidence
8.10 The student will			
a) verify the Pythagorean Theorem; and	x		
b) apply the Pythagorean Theorem.	x		
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	<b>Adequate</b>	<b>Limited</b>	<b>No Evidence</b>
8.11 The student will solve practical area and perimeter problems involving composite plane figures.	X		
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	<b>Adequate</b>	<b>Limited</b>	<b>No Evidence</b>
8.12 The student will determine the probability of independent and dependent events with and without replacement.	X		
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8.13 The student will			
a) make comparisons, predictions, and inferences, using information displayed in graphs; and	x		
b) construct and analyze scatterplots.	x		
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8.14 The student will make connections between any two representations (tables, graphs, words, and rules) of a given relationship.	X		
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8.15 The student will			
a) solve multistep linear equations in one variable with the variable on one and two sides of the equation;	x		
b) solve two-step linear inequalities and graph the results on a number line; and	x		
c) identify properties of operations used to solve an equation.	x		
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8.16 The student will graph a linear equation in two variables.	X		
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8.17 The student will identify the domain, range, independent variable, or dependent variable in a given situation.	X		
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