





5A Mathin Focus Singapore Math A model for the OMMON CORF

Correlation to the Common Core State Standards for Mathematics

Math in Focus[®] © 2015 Grade 5

hmhco.com/mathinfocus

Connect with us:

Math in Focus® and Marshall Cavendish® are registered trademarks of Times Publishing Limited. Singapore Math® is a trademark owned by Singapore Math Inc. and Marshall Cavendish Education Pte. Ltd. Houghton Mifflin Harcourt™ and HMH® are trademarks or registered trademarks of Houghton Mifflin Harcourt. © Houghton Mifflin Harcourt. All rights reserved. Printed in the U.S.A. 05/16 MS176347





Houghton Mifflin Harcourt Math in Focus, Grade 5 ©2015 Common Core Edition

correlated to the

Common Core State Standards for Mathematics Grade 5

Standards	Descriptor		Page Citations
Standards for	Mathematical Practice		
SMP.1 Make s	ense of problems and persevere in solving them.	For example:	
		SE/TE-5A:	5-15, 25-35, 74-85, 94-101, 102-114, 115, 128-
How Math in F	<i>Tocus</i> Aligns:		132, 133-136, 156-160, 161, 176-181, 189-192,
Math in Focus	s built around the Singapore Ministry of Education's		193-199, 200-210, 224-234, 242-251, 252-257,
mathematics fra	mework pentagon, which places mathematical problem		276-282, 303-309, 310-315, 322-331
solving at the co	bre of the curriculum. Encircling the pentagon are the skills	Workbook 5A:	15B, 15C, 35A, 35B, 35C, 85A, 85B, 101A,
and knowledge	needed to develop successful problem solvers, with		101B, 101C, 108A, 108B, 114A, 114B, 115A,
concepts, skills,	, and processes building a foundation for attitudes and		132A, 132B, 136A, 159A, 159B, 159C, 159D,
metacognition.	Math in Focus is based on the premise that in order for		161A, 181A, 181B, 192, 199A, 199B, 210A,
students to pers	evere and solve both routine and non-routine problems,		210B, 234, 234A, 234B, 251A, 256, 256A, 281A,
they need to be	given tools that they can use consistently and successfully.		309A, 315, 315A, 331A
They need to ur	derstand both the <i>how</i> and the <i>why</i> of math so that they		
can self-monito	r and become empowered problem solvers. This in turn	SE/TE-5B:	3-25, 53-61, 62-69, 70-76, 89-94, 95, 123-130,
spurs positive a	ttitudes that allow students to solidify their learning and		169-177, 178, 189-194, 200-204, 221-230, 237-
enjoy mathemat	tics. Math in Focus teaches content through a problem		249, 259-262, 277-284, 296-309
U	solving perspective. Strong emphasis is placed on the concrete-to-		25A, 25B, 61A, 61B, 69A, 76A, 94A, 94B, 95,
pictorial-to-abst	pictorial-to-abstract progress to solve and master problems. This leads to		95A, 130A, 176A, 178A, 194A, 194B, 204A,
strong conceptu	al understanding. Problem solving is embedded throughout		204B, 230A, 230B, 249, 262A, 284A, 309, 309A,
the program			309B, 309C

Standards	Descriptor	Page Citations	
SMP.2 Reason	SMP.2 Reason abstractly and quantitatively.		
			25-35, 68-72, 102-114, 115, 128-132, 133-136,
How Math in F	ocus Aligns:		137-142, 143-145, 151-155, 161, 176-181, 182-
Math in Focus'	concrete-pictorial-abstract progression helps students		183, 200-210, 242-251, 252-257, 276-282, 332
effectively conte	extualize and decontextualize situations by developing a	Workbook 5A:	73A, 73B, 108A, 108B, 114A, 114B, 115A,
deep mastery of	concepts. Each topic is approached with the expectation		132A, 132B, 136A, 142A, 145A, 155A, 161A,
that students will	l understand both how it works, and also why. Students		181A, 181B, 183A, 194A, 194B, 210A, 210B,
start by experier	ncing the concept through hands-on manipulative use.		251A, 256, 256A, 281A, 332
Then, they must	translate what they learned in the concrete stage into a		
visual representation	ation of the concept. Finally, once they have gained a	SE/TE-5B:	70-76, 95, 139-142, 143-149, 150-157, 158-163,
strong understar	iding, they are able to represent the concept abstractly.		169-177, 178, 189-194, 195-199, 200-204, 217-
Once students re	each the abstract stage, they have had enough exposure to		220, 221-230, 237-249
the concept and	they are able to manipulate it and apply it in multiple	Workbook 5B:	76A, 95A, 142A, 142B, 149, 157A, 163A, 163B,
contexts. They a	re also able to extend and make inferences; this prepares		176A, 178A, 199A, 204A, 204B, 220A, 230A,
them for success in more advanced levels of mathematics. They are able to			230B, 249
both use the symbols and also understand why they work, which allows			
students to relate them to other situations and apply them effectively.			

Standards	Descriptor		Page Citations
SMP. 3 Constr	SMP. 3 Construct viable arguments and critique the reasoning of		
others.		SE/TE-5A:	5-15, 74-85, 94-101, 115, 128-132, 133-136, 146-
			150, 172-175, 184-188, 224-234, 276-282, 310-
How Math in F	<i>locus</i> Aligns:		315, 322-331
As seen on the S	Singapore Mathematics Framework pentagon,	Workbook 5A:	15B, 15C, 85A, 85B, 101A, 101B, 101C, 105A,
metacognition is	s a foundational part of the Singapore curriculum. Students		132A, 132B, 136A, 150A, 175A, 188A, 234,
are taught to sel	f-monitor, so they can determine whether or not their		234A, 234B, 281A, 315, 315A, 331A
solutions make	sense. Journal questions and other opportunities to explain		
their thinking ar	e found throughout the program. Students are	SE/TE-5B:	62-69, 169-177, 221-230, 259-262, 277-284
systematically ta	aught to use visual diagrams to represent mathematical	Workbook 5B:	69A, 176A, 230A, 230B, 262A, 284A
relationships in	such a way as to not only accurately solve problems, but		
	eir answers. Chapters conclude with a Put on Your		
Thinking Cap! p	problem. This is a comprehensive opportunity for students		
	ts and present viable arguments. Games, explorations, and		
	ies are also strategically placed in chapters when students		
0	cepts. During these collaborative experiences, students		
	e another to construct viable arguments and critique the		
Ũ	ers in a constructive manner. In addition, thought bubbles		
•	provide tutorial guidance throughout the entire Student Book. These		
	scaffolded dialogues help students articulate concepts, check for		
understanding, a	analyze, justify conclusions, and self-regulate if necessary.		

Standards	Descriptor		Page Citations
SMP.4 Model with mathematics.		For <i>example</i> :	
		SE/TE-5A:	47-50, 51-63, 74-85, 102-114, 137-142, 143-145,
How Math in F	<i>locus</i> Aligns:		146-150, 151-155, 161, 172-175, 182-183, 193-
Math in Focus f	ollows a concrete-pictorial-abstract progression,		199, 200-210, 224-234, 235-241, 267-270, 271-
introducing con	cepts first with physical manipulatives or objects, then		275, 276-282, 296-302, 316-321, 332
moving to picto	rial representation, and finally on to abstract symbols. A	Workbook 5A:	50A, 85A, 85B, 108A, 108B, 114A, 114B, 142A,
number of mode	els are found throughout the program that support the		145A, 150A, 155A, 161A, 175A, 183A, 199A,
pictorial stage o	f learning. Math in Focus places a strong emphasis on		199B, 210A, 210B, 234, 234A, 234B, 241A, 270,
number and num	nber relationships, using place-value manipulatives and		270A, 275A, 281A, 302, 321A, 332
place-value char	rts to model concepts consistently throughout the program.		
In all grades, op	erations are modeled with place-value materials so	SE/TE-5B:	36-42, 43-52, 53-61, 62-69, 77-88, 139-142, 143-
students underst	and how the standard algorithms work. Even the mental		149, 150-157, 158-163, 164-168, 178, 189-194,
math instruction	uses understanding of place value to model how mental		195-199, 200-204, 231-236, 237-249, 259-262,
arithmetic can b	e understood and done. These place-value models build		263-266, 285-295, 310-314
throughout the p	program to cover increasingly complex concepts.	Workbook 5B:	42, 42A, 52A, 52B, 61A, 61 B, 69A, 88A, 88B,
Singapore math	is also known for its use of model drawing, often called		88C, 142A, 142B, 149, 157A, 163A, 163B, 178A,
"bar modeling"	in the U.S. Model drawing is a systematic method of		194A, 194B, 199A, 204A, 204B, 236A, 236B,
representing wo	rd problems and number relationships that is explicitly		249, 262A, 266, 266A, 295A, 315A, 315B
taught beginning	g in Grade 2 and extends all the way to secondary school.		
Students are tau	Students are taught to use rectangular "bars" to represent the relationship		
between known	between known and unknown numerical quantities and to solve problems		
related to these	related to these quantities. This gives students the tools to develop mastery		
and tackle probl	ems as they become increasingly more complex.		

Standards	Descriptor		Page Citations
How Math in F Math in Focus h	SMP.5 Use appropriate tools strategically.How Math in Focus Aligns: Math in Focus helps students explore the different mathematical tools that		47-50, 51-63, 74-85, 102-114 50A, 63A, 63B, 85A, 85B, 108A, 108B, 114A, 114B
are available to them. New concepts are introduced using concrete objects, which help students break down concepts to develop mastery. They learn how to use these manipulatives to attain a better understanding of the problem and solve it appropriately. <i>Math in Focus</i> includes representative pictures and icons as well as thought bubbles that model the thought processes students should use with the tools. Several examples are listed below. Additional tools referenced and used in the program include clocks, money, dot paper, place-value charts, geometric tools, and figures.		SE/TE-5B: Workbook 5B:	95, 189-194, 195-199, 200-204 95A, 194A, 194B, 199A, 204A, 2048, 315A, 315B
SMP.6 Attend	o precision.	<i>For example:</i> SE/TE-5A:	
As seen in the S ability to monito	How <i>Math in Focus</i> Aligns: As seen in the Singapore Mathematics Framework, metacognition, or the ability to monitor one's own thinking, is key in Singapore math. This is modeled for students throughout <i>Math in Focus</i> through the use of thought		5-15, 47-50, 51-63, 74-85, 94-101, 128-132, 133- 136, 137-142, 143-145, 146-150, 151-155, 161, 172-175, 184-188, 193-199, 224-234, 235-241, 271-275, 276-282, 296-302, 310-315, 316-321, 322-331, 332
bubbles, journal writing, and prompts to explain reasoning. When students are taught to monitor their own thinking, they are better able to attend to precision, as they consistently ask themselves, "does this make sense?" This questioning requires students to be able to understand and explain their reasoning to others, as well as catch mistakes early on and identify when incorrect labels or units have been used. Additionally, precise		Workbook 5A:	15B, 15C, 50A, 63A, 63B, 85A, 85B, 101A, 101B, 101C, 122, 122A, 130A, 132A, 132B, 136A, 142A, 145A, 150A, 155A, 161A, 175A, 188A, 199A, 199B, 234, 234A, 234B, 241A, 275A, 281A, 302, 315, 315A, 321A, 331A, 332
language is an important aspect of <i>Math in Focus</i> . Students attend to the precision of language with terms like factor, quotient, difference, and capacity.		SE/TE-5B:	7-17, 36-42, 43-52, 62-69, 77-88, 89-94, 111-115, 116-122, 123-130, 143-149, 150-157, 164-168, 169-177, 189-194, 195-199, 200-204, 221-230, 231-236, 237-249, 259-262, 277-284, 285-295, 310-314
		Workbook 5B:	17 A, 42, 42A, 52A, 52B, 69A, 88A, 88B, 88C, 94A, 94B, 95, 149, 157A, 163A, 163B, 176A, 194A, 194B, 199A, 204A, 204B, 230A, 230B, 236A, 236B, 249, 262A, 284A, 295A

Houghton Mifflin Harcourt *Math in Focus, Grade 5* ©2015 – Common Core Edition correlated to the Common Core State Standards for Mathematics, Grade 5

Standards	Descriptor		Page Citations
	SMP.7 Look for and make use of structure. How <i>Math in Focus</i> Aligns:		94-101, 102-114, 115, 156-160, 184-188, 189- 192, 193-199, 235-241, 267-270
The inherent pedagogy of Singapore math allows students to look for, and make use of, structure. Place value is one of the underlying principles in <i>Math in Focus</i> . Concepts in the program start simple and grow in complexity throughout the chapter, year, and grade. This helps students		Workbook 5A:	101A, 101B, 101C, 108A, 108B, 114A, 114B, 115A, 159A, 159B, 159C, 159D, 188A, 192, 199A, 199B, 241A, 270, 270A
master the structure of a given skill, see its utility, and advance to higher levels. Many of the models in the program, particularly number bonds and bar models, allow students to easily see patterns within concepts and make inferences. As students progress through grade levels, this level of structure becomes more advanced.		SE/TE-5B: Workbook 5B:	77-88, 89-94 88A, 88B, 88C, 94A, 94B, 95
	r and express regularity in repeated reasoning.	<i>For example:</i> SE/TE-5A:	25-35, 51-63, 64-67, 74-85, 94-101, 102-114,
bar modeling and to look for and e	<i>ccus</i> Aligns: tion in place value, combined with modeling tools such as d number bonds, gives students the foundation they need xpress regularity in repeated reasoning. Operations are e value materials so students understand how the standard	Workbook 5A:	184-188, 200-210, 216-219, 267-270, 276-282 63A, 63B, 67A, 85A, 85B, 101A, 101 B, 101C, 108A, 108B, 114A, 114B, 188A, 210A, 210B, 223A, 270, 270A, 281A
algorithms work understanding of understood and of problems and un are given consist to see the similar efficient means f regularity with the Students continue the program; the	in all grades. Even the mental math instruction uses Eplace value to model how mental arithmetic can be done. This allows students to learn shortcuts for solving derstand why they work. Additionally, because students tent tools for solving problems, they have the opportunity rities in how different problems are solved and understand for solving them. Throughout the program, students see he reasoning and patterns between the four key operations. ally evaluate the reasonableness of solutions throughout consistent models for solving, checking, and self- hem validate their answers.	SE/TE-5B: Workbook 5B:	18-22, 43-52, 158-163, 310-314 52A, 52B, 315A, 315B

Standards	Descriptor		Page Citations
Standards for 1	Mathematical Content		
5.OA	Operations and Algebraic Thinking		
Write and inte	rpret numerical expressions.		
5.OA.1	Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	SE/TE-5A: Workbook 5A:	68-72, 86-93, 94-101, 102-114, 115, 216-219, 224-234, 242-251, 252-257 101A, 101B, 101C, 108A, 108B, 114A, 114B, 115A, 234, 234A, 234B, 251A, 256, 256A
5.OA.2	Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.	SE/TE-5A: Workbook 5A:	94-101, 102-114, 115, 224-234, 257 101A, 101B, 101C, 108A, 108B, 114A, 114B, 115A, 234, 234A, 234B, 257A
Analyze patter	ns and relationships.		
5.OA.3	Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.	SE/TE-5A: Workbook 5A: SE/TE-5B: Workbook 5B:	216-219 223A 158-163 163A, 163B
5.NBT	Number and Operations in Base Ten		
Understand the	e place value system.		
5.NBT.1	Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.	SE/TE-5A: Workbook 5A: SE/TE-5B: Workbook 5B:	5-15, 16-19, 20-24, 51-63, 74-85 15B, 15C, 19A, 24A, 63A, 63B, 85A, 85B 7-17, 18-22, 23-25, 36-42, 43-52, 53-61, 62-69 17A, 22A, 25A, 25B, 42, 42A, 52A, 52B, 61A, 61B, 69A
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.	SE/TE-5A: Workbook 5A: SE/TE-5B: Workbook 5B:	51-63, 64-67, 68-73 63A, 63B, 67A 30-35, 43-52, 62-69 52A, 52B, 69A

Houghton Mifflin Harcourt *Math in Focus, Grade 5* ©2015 – Common Core Edition correlated to the Common Core State Standards for Mathematics, Grade 5

Standards	Descriptor		Page Citations
5.NBT.3	Read, write, and compare decimals to thousandths.	·	
5.NBT.3.a	Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000).$	SE/TE-5B: Workbook 5B:	7-17, 23-25 17A, 25A, 25B
5.NBT.3.b	Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.	SE/TE-5B: Workbook 5B:	18-22 22A
5.NBT.4	Use place value understanding to round decimals to any place.	SE/TE-5B: Workbook 5B:	1-6, 18-22, 53-61, 70-76, 89-94 22A, 61A, 61B, 76A, 94A, 94B, 95
Perform oper	ations with multi-digit whole numbers and with decimals t	to hundredths.	
5.NBT.5	Fluently multiply multi-digit whole numbers using the standard algorithm.	SE/TE-5A: Workbook 5A:	47-50, 51-63, 68-72, 102-114, 115 50A, 63A, 63B, 73A, 73B, 108A, 108B, 114A, 114B, 115A
		SE/TE-5B: Workbook 5B:	277-284 284A
5.NBT.6	Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	SE/TE-5A: Workbook 5A:	47-50, 74-85, 86-93, 102-114 50A, 85A, 85B, 93, 93A, 108A, 108B, 114A, 114B
5.NBT.7	Add, subtract, multiply, and divide decimals to hundredths, 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 and explain the reasoning used.	SE/TE-5B: Workbook 5B:	7-17, 30-35, 36-42, 43-52, 53-61, 62-69, 70-76, 89-94 17A, 22A, 42, 42A, 52A, 52B, 61A, 61B, 69A, 76A, 94A, 94B, 95

Standards	Descriptor		Page Citations
5.NF	Number and Operations - Fractions		
Use equivalent	t fractions as a strategy to add and subtract fractions.		
5.NF.1	Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.	SE/TE-5A: Workbook 5A:	120-127, 128-132, 133-136, 146-150, 151-155, 156-160 132A, 132B, 136A, 150A, 155A, 159A, 159B, 159C, 159D
5.NF.2	Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.	SE/TE-5A: Workbook 5A:	128-132, 133-136, 156-160 132A, 132B, 136A, 159A, 159B, 159C, 159D
Apply and ext	end previous understandings of multiplication and division	on to multiply and	l divide fractions.
5.NF.3	Interpret a fraction as division of the numerator by the denominator $(a/b = a \div b)$. Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.	SE/TE-5A: Workbook 5A:	137-142, 143-145 142A, 145A
5.NF.4	Apply and extend previous understandings of multiplication	n to multiply a fra	ction or whole number by a fraction.
5.NF.4.a	Interpret the product $(a/b) \times q$ as <i>a</i> parts of a partition of <i>q</i> into <i>b</i> equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$.	SE/TE-5A: Workbook 5A:	172-175, 176-181, 182-183, 189-192 175A, 181A, 181B, 183A, 192

Standards	Descriptor		Page Citations
5.NF.4.b	Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.	SE/TE-5A: Workbook 5A:	172-175, 182-183, 267-270 175A, 183A, 270, 270A
Perform opera	tions with multi-digit whole numbers and with decimals	to hundredths.	
5.NF.5	Interpret multiplication as scaling (resizing), by:		
5.NF.5.a	Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.	SE/TE-5A: Workbook 5A:	184-188, 296-302, 316-321, 322- 331 188A, 302, 321A, 331A, 331B
5.NF.5.b	Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.	SE/TE-5A: Workbook 5A:	184-188 188A
5.NF.6	Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.	SE/TE-5A: Workbook 5A:	176-181, 184-188, 189-192, 200-210, 211 181A, 181B, 188A, 192, 210A, 210B, 211A

Standards	Descriptor		Page Citations	
5.NF.7	Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.			
5.NF.7.a	Interpret division of a unit fraction by a non-zero whole number, and compute such quotients.	SE/TE-5A: Workbook 5A:	193-199, 200-210 199A, 199B, 210A, 210B	
5.NF.7.b	Interpret division of a whole number by a unit fraction, and compute such quotients.	SE/TE-5A: Workbook 5A:	193-199 199A, 199B	
5.NF.7.c	Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem.	SE/TE-5A: Workbook 5A:	193-199, 200-210 199A, 199B, 210A, 210B	
5.MD	Measurement and Data	1		
Convert like n	neasurement units within a given measurement system.			
5.MD.1	Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.	SE/TE-5B: Workbook 5B:	77-88, 150-157, 256-258, 296-309 88A, 88B, 88C, 157A, 309, 309A, 309B, 309C	
Represent and	l interpret data.			
5.MD.2	Make a line plot to display a data set of measurements in fractions of a unit $(1/2, 1/4, 1/8)$. Use operations on fractions for this grade to solve problems involving information presented in line plots.	SE/TE-5B: Workbook 5B:	139-142, 169-177 142A, 142B, 176A	

Standards	Descriptor		Page Citations
Geometric me	asurement: understand concepts of volume and relate vol	ume to multiplic	ation and to addition.
5.MD.3	Recognize volume as an attribute of solid figures and	SE/TE-5B:	285-295, 296-309
	understand concepts of volume measurement.	Workbook 5B:	295A, 309, 309A, 309B, 309C
5.MD.3.a	A cube with side length 1 unit, called a "unit cube," is	SE/TE-5B:	285-295, 296-309
	said to have "one cubic unit" of volume, and can be used to measure volume.	Workbook 5B:	295A, 309, 309A, 309B, 309C
5.MD.3.b	A solid figure which can be packed without gaps or	SE/TE-5B:	285-295, 296-309
	overlaps using n unit cubes is said to have a volume of n cubic units.	Workbook 5B:	295A, 309, 309A, 309B, 309C
5.MD.4	Measure volumes by counting unit cubes, using cubic	SE/TE-5B:	285-295, 296-309
	cm, cubic in, cubic ft, and improvised units.	Workbook 5B:	295A, 309, 309A, 309B, 309C
5.MD.5	Relate volume to the operations of multiplication and addit volume.	tion and solve real	world and mathematical problems involving
5.MD.5.a	Find the volume of a right rectangular prism with whole-	SE/TE-5B:	285-295, 296-309
	number side lengths by packing it with unit cubes, and	Workbook 5B:	309, 309A, 309B, 309C
	show that the volume is the same as would be found by		
	multiplying the edge lengths, equivalently by multiplying		
	the height by the area of the base. Represent threefold		
	whole-number products as volumes, e.g., to represent the associative property of multiplication.		
5.MD.5.b	Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for	SE/TE-5B:	296-309
	rectangular prisms to find volumes of right rectangular	Workbook 5B:	309, 309A, 309B, 309C
	prisms with whole-number edge lengths in the context of		
	solving real world and mathematical problems.		

Houghton Mifflin Harcourt *Math in Focus, Grade 5* ©2015 – Common Core Edition correlated to the Common Core State Standards for Mathematics, Grade 5

Standards	Descriptor	Page Citations	
5.MD.5.c	Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non- overlapping parts, applying this technique to solve real world problems.	SE/TE-5B: Workbook 5B:	310-314 315A, 315B
5.G	Geometry		
Graph points	on the coordinate plane to solve real-world and mathemat	tical problems.	
5.G.1	Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., <i>x</i> -axis and <i>x</i> -coordinate, <i>y</i> -axis and <i>y</i> -coordinate).	SE/TE-5B: Workbook 5B:	150-157 157A
5.G.2	Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.	SE/TE-5B: Workbook 5B:	150-157 157A

Standards	Descriptor	Page Citations				
Classify two-dimensional figures into categories based on their properties.						
5.G.3	Understand that attributes belonging to a category of two-	SE/TE-5A:	276-282			
	dimensional figures also belong to all subcategories of	Workbook 5A:	281A			
	that category.					
		SE/TE-5B:	212-216, 221-230, 237-249			
		Workbook 5B:	216A, 230A, 230B, 249			
5.G.4	Classify two-dimensional figures in a hierarchy based on	SE/TE-5A:	276-282			
	properties.	Workbook 5A:	281A			
		SE/TE-5B:	212-216, 221-230, 237-249			
		Workbook 5B:	216A, 249			