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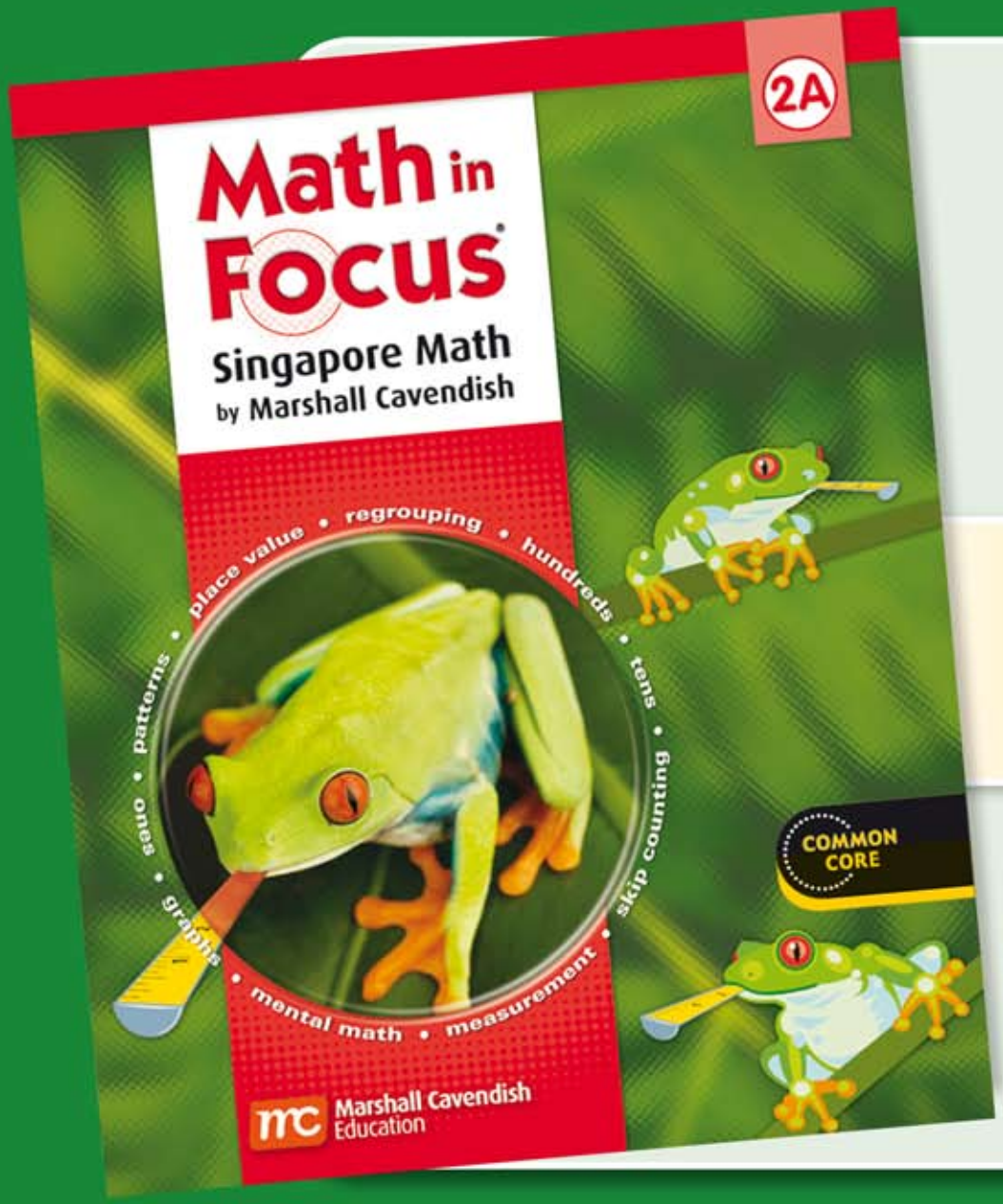

Correlation to the Common Core State Standards for Mathematics

Math in Focus © 2013 Grade 2

COMMON CORE

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Correlation of *Math in FocusÈ* to the Common Core State Standards

Attached are grade level correlations showing how closely ***Math in FocusÈ*** covers the skills and concepts outlined in the Common Core State Standards. But it is equally important to recognize the parallel assumptions behind the Common Core and ***Math in FocusÈ***. In fact, the Singapore curriculum was one of the 15 national curriculums examined by the committee and had a particularly important impact on the writers because Singapore is the top performing country in the world and the material is in English.

> *Overall, the CCSS are well aligned to Singapore's Mathematics Syllabus.*
> *Policymakers can be assured that in adopting the CCSS, they will be setting learning expectations for students that are similar to those set by Singapore in terms of rigor, coherence and focus. – Achieve (achieve.org/CCSSandSingapore)*
> *—Achieve*, (achieve.org/CCSSandSingapore)*

Here are the parallel assumptions:

1, Curriculum must be focused and coherent:

Common Core State Standards:

> *For over a decade, research studies of mathematics education in high performing countries have pointed to the conclusion that the mathematics curriculum in the United States must become substantially more focused and coherent in order to improve mathematics achievement in this country.*
> *(Common Core State Standards for Mathematics, 3)*

Math in FocusÈ is organized to teach fewer topics in each grade but to teach them thoroughly. When a concept appears in a subsequent grade level, it is always at a higher level. For instance, first grade does not address fractions, second grade covers what a fraction is, third grade covers equivalent fractions and fractions of a set, fourth grade deals with mixed fractions, and addition of simple fractions, while fifth grade teaches addition, subtraction, and multiplication of fractions as well as division of fractions by whole numbers. This is the coherence and focus that the standards call for.

2. Teach to mastery

Common Core State Standards:

> *In grade 2, instructional time should focus on four critical areas: (1) extending understanding of base-ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes.*
> *(Common Core State Standards for Mathematics, 17)*
>
> *In Grade 3, instructional time should focus on four critical areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100;(2)developing understanding of fractions, especially unit fractions…;(3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing tw0-dimensional shapes*
> *(Common Core State Standards for Mathematics, 21)*

Math in FocusÈ has the identical structure. Rather than repeating topics, students master them in a grade level, and subsequent grades develop them to more advanced levels. Adding another digit is NOT an example. Moving from addition/subtraction in second grade to multiplication/division in third grade is such an example. Students continue to practice all the operations with whole numbers in every grade in the context of problem solving.

3. **Focus on number, geometry and measurement in elementary grades**

Common Core State Standards:

> *Mathematics experiences in early childhood settings should concentrate on (1) number (which includes whole number, operations, and relations) and (2) geometry, spatial relations, and measurement, with more mathematics learning time devoted to number than to other topics*.
> *(Common Core State Standards for Mathematics, 3)*

Math in FocusÈ emphasizes number and operations in every grade K-5 just as recommended in the CCSS. The textbook is divided into two books roughly a semester each. Approximately 75% of Book A is devoted to number and operations and 60-70% of Book B to geometry and measurement where the number concepts are practiced. The key number topics are in the beginning of the school year so students have a whole year to master them.

4. Organize content by big ideas such as place value

Common Core State Standards:

> *These Standards endeavor to follow such a design, not only by stressing conceptual understanding of key ideas, but also by continually returning to organizing principles such as place value or the properties of operations to structure those ideas. (Common Core State Standards for Mathematics, 4)*

Math in FocusÈ is organized around place value and the properties of operations. The first chapter of each grade level from second to fifth begins with place value. In first grade, students learn the teen numbers and math facts through place value. In all the grades, operations are taught with place value materials so students understand how the standard algorithms work. Even the mental math that is taught uses understanding of place value to model how mental arithmetic can be understood and done.

5. Curriculum must include both conceptual understanding and procedural fluency.

Common Core State Standards:

> *The Standards for Mathematical Content are a balanced combination of procedure and understanding (Common Core State Standards for Mathematics, 8)*

Math in FocusÈ is built around the Singapore Ministry of Education's famous pentagon that emphasizes conceptual understanding, skill development, strategies for solving problems, attitudes towards math, and metacognition that enable students to become excellent problem solvers. The highly visual nature of the text and the consistent concrete to visual to abstract approach enables all students to both understand how procedures work and to fluently apply them to solve problems.

6. Mathematics is about reasoning

Common Core State Standards:

> *These Standards define what students should understand and be able to do in their study of mathematics....One hallmark of mathematical understanding is the ability to justify, in a way appropriate to the student's mathematical maturity.*
> *(Common Core State Standards for Mathematics, 4)*

Math in FocusÈ is famous for its model drawing to solve problems and to enable students to justify their solutions. In addition to journal questions and other explicit opportunities to explain their thinking, students are systematically taught to use visual diagrams to represent mathematical relationships in such a way as to accurately solve problems, but also to explain their thinking.

Works Cited:

1. "Common Core State Standards For Mathematics" *Common Core State Standards Initiative | Home*. 2 June 2010. Web. 26 July 2010. <http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf>.

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Math in FocusÈ , Grade 2 ©2013
Common Core Edition

correlated to the

Common Core State Standards for Mathematics
Grade 2

Standards	Descriptor	Page Citations
Standards for Mathematical Practice		
MP.1 Make sense of problems and persevere in solving them. **How *Math in Focus* Aligns:** *Math in FocusÈ* is built around the Singapore Ministry of Education's mathematics framework pentagon, which places mathematical problem solving at the core of the curriculum. Encircling the pentagon are the skills and knowledge needed to develop successful problem solvers, with concepts, skills, and processes building a foundation for attitudes and metacognition. *Math in FocusÈ* is based on the premise that in order for students to persevere and solve both routine and non-routine problems, they need to be given tools that they can use consistently and successfully. They need to understand both the *how* and the *why* of math so that they can self-monitor and become empowered problem solvers. This in turn spurs positive attitudes that allow students to solidify their learning and enjoy mathematics. *Math in FocusÈ* teaches content through a problem solving perspective. Strong emphasis is placed on the concrete-to-pictorial-to-abstract progress to solve and master problems. This leads to strong conceptual understanding. Problem solving is embedded throughout the program.		*This standard is covered throughout the program; the following are examples.* **SE/TE-2A:** 26-28, 29-30, 31, 32, 54, 59, 88-89, 121, 137, 147, 155, 162-163, 173, 186, 194, 204, 221, 230, 247, 259, 281 **Workbook 2A:** 31A, 32A, 33A, 54B, 121C, 123C, 123D, 147A, 167A, 178A, 186A, 186C, 195A, 221A, 223A, 259A, 281B **SE/TE-2B:** 8, 10-15, 38-39, 70, 97, 127, 128, 157, 158-159, 190, 193, 217, 224-231, 232-234, 240, 243, 245, 265, 266, 292-294, 296, 298-299, 300-302, 303, 305 **Workbook 2B:** 15A, 19A, 26A, 70A, 97A, 127A, 190A, 217A, 231A, 237A, 237B, 247A, 302A

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Standards	Descriptor	Page Citations
MP.2 Reason abstractly and quantitatively. **How *Math in FocusÈ* Aligns:** *Math in Focus*'È concrete-pictorial-abstract progression helps students effectively contextualize and decontextualize situations by developing a deep mastery of concepts. Each topic is approached with the expectation that students will understand both *how* it works, and also *why*. Students start by experiencing the concept through hands-on manipulative use. Then, they must translate what they learned in the concrete stage into a visual representation of the concept. Finally, once they have gained a strong understanding, they are able to represent the concept abstractly. Once students reach the abstract stage, they have had enough exposure to the concept and they are able to manipulate it and apply it in multiple contexts. They are also able to extend and make inferences; this prepares them for success in more advanced levels of mathematics. They are able to both use the symbols and also understand why they work, which allows students to relate them to other situations and apply them effectively.		*This standard is covered throughout the program; the following are examples.* **SE/TE-2A:** 26-28, 29-30, 31, 32, 35-37, 89, 147, 155, 158-159, 160-161, 171-172, 176-178, 181, 183, 186, 187, 188, 194-195, 211-213, 230-234, 249, 263-265, 267-270 **Workbook 2A:** 31A, 32A, 33A, 54B, 123C, 123D, 147A, 161A, 172A, 174A, 178A, 183A, 186A, 188A, 188C, 188D, 259A, 272A, 283F **SE/TE-2B:** 150-153, 155, 156, 157, 160-161, 172-174, 181-183, 224-231, 261-264, 267, 292-294, 296, 298-300, 301-302, 305 **Workbook 2B:** 156A, 231A, 302A

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Standards	Descriptor	Page Citations
MP.3 Construct viable arguments and critique the reasoning of others. **How *Math in FocusÈ* Aligns:** As seen on the Singapore Mathematics Framework pentagon, metacognition is a foundational part of the Singapore curriculum. Students are taught to self-monitor, so they can determine whether or not their solutions make sense. Journal questions and other opportunities to explain their thinking are found throughout the program. Students are systematically taught to use visual diagrams to represent mathematical relationships in such a way as to not only accurately solve problems, but also to justify their answers. Chapters conclude with a Put on Your Thinking Cap! problem. This is a comprehensive opportunity for students to apply concepts and present viable arguments. Games, explorations, and hands-on activities are also strategically placed in chapters when students are learning concepts. During these collaborative experiences, students interact with one another to construct viable arguments and critique the reasoning of others 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, analyze, justify conclusions, and self-regulate if necessary.		**SE/TE-2A:** 29, 30, 120, 131, 147, 172, 183 **SE/TE-2B:** 16, 27, 33, 51, 53, 173, 187

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Standards	Descriptor	Page Citations
MP.4 Model with mathematics. **How *Math in Focus*® Aligns:** *Math in Focus*® follows a concrete-pictorial-abstract progression, introducing concepts first with physical manipulatives or objects, then moving to pictorial representation, and finally on to abstract symbols. A number of models are found throughout the program that support the pictorial stage of learning. *Math in Focus*® places a strong emphasis on number and number relationships, using place-value manipulatives and place-value charts to model concepts consistently throughout the program. In all grades, operations are modeled with place-value materials so students understand how the standard algorithms work. Even the mental math instruction uses understanding of place value to model how mental arithmetic can be understood and done. These place-value models build throughout the program to cover increasingly complex concepts. Singapore math is also known for its use of model drawing, often called "bar modeling" in the U.S. Model drawing is a systematic method of representing word problems and number relationships that is explicitly taught beginning in Grade 2 and extends all the way to secondary school. Students are taught to use rectangular "bars" to represent the relationship between known and unknown numerical quantities and to solve problems related to these quantities. This gives students the tools to develop mastery and tackle problems as they become increasingly more complex.		*This standard is covered throughout the program; the following are examples.* **SE/TE-2A:** 6-12, 17-21, 23, 33, 38-40, 61-63, 67-68, 72-74, 78-80, 84-85, 96-97, 98-99, 101-102, 103-104, 106-108, 109-110, 111-114, 115-117, 118-121, 122-123, 129, 146, 216-220, 220A, 278-281, 283 **Workbook 2A:** 102A, 108A, 114A, 121A, 121B, 121C, 123A, 123C, 123D, 133A, 141A, 146A, 220A, 223B, 258A, 261A, 261B, 281A, 283D, 283F, 283G **SE/TE-2B:** 6-7, 17-18, 20-25, 66-68, 72, 79, 83-86, 88-89, 93, 96, 99, 122-125, 133-134, 137-139 **Workbook 2B:** 19A

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Standards	Descriptor	Page Citations
MP.5 Use appropriate tools strategically. **How *Math in Focus*® Aligns:** *Math in Focus*® helps students explore the different mathematical tools that 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. *Math in Focus*® 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.		*This standard is covered throughout the program; the following are examples.* **SE/TE-2A:** 6-10, 11-12, 17, 18-21, 23, 33, 38-40, 42, 44, 46-47, 49-50, 61-63, 67-68, 72-74, 76, 78-80, 84-85, 92, 96-99, 139, 156-160, 163, 168, 171, 176-178, 187-188, 192-195, 196-200, 201-210, 211-215, 218-220, 222-223, 229-234, 235, 236-238, 239, 240-241, 242-243, 244, 245, 248, 250-252, 260-261, 274-276, 277, 283 **Workbook 2A:** 10A, 17A, 33A, 161A, 172A, 188A, 188C, 188D, 195A, 210A, 215A, 223A, 234A, 239A, 244A, 252A, 258A, 259A, 261A, 277A, 281B, 283A, 283D, 283E, 283F **SE/TE-2B:** 9, 103-108, 111-121, 126, 161-162, 164, 170-173, 174, 179-182, 183, 191-192, 193 **Workbook 2B:** 99C, 99D, 110A, 121A, 174A, 183A

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Standards	Descriptor	Page Citations
MP.6 Attend to precision. **How *Math in Focus*® 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 *Math in Focus*® through the use of thought 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 language is an important aspect of *Math in Focus*®. Students attend to the precision of language with terms like factor, quotient, difference, and capacity.		*This standard is covered throughout the program; the following are examples.* **SE/TE-2A:** 29, 30, 100, 101, 105, 112, 120, 131, 139, 147, 172, 183, 194, 198, 205, 213, 230, 247, 249, 255, 267, 270 **SE/TE-2B:** 16, 27, 33, 51, 53, 59, 77, 80, 87, 105, 109, 120, 135, 154, 168, 173, 180, 185, 187, 199, 203, 204, 235, 236, 254, 256, 262, 263, 273, 275, 278, 280, 290, 297
MP.7 Look for and make use of structure. **How *Math in Focus*® Aligns:** 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 *Math in Focus*®. Concepts in the program start simple and grow in complexity throughout the chapter, year, and grade. This helps students 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.		*This standard is covered throughout the program; the following are examples.* **SE/TE-2A:** 24-26, 30, 33, 89, 237, 239, 245, 250, 260, 270-272 **Workbook 2A:** 31A, 33A, 54B, 123C, 252A, 258A, 261A, 272A, 277A, 283E **SE/TE-2B:** 84-86, 89, 99 **Workbook 2B:** 99A

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Standards	Descriptor	Page Citations
MP.8 Look for and express regularity in repeated reasoning. **How *Math in Focus*® Aligns:** A strong foundation in place value, combined with modeling tools such as bar modeling and number bonds, gives students the foundation they need to look for and express regularity in repeated reasoning. Operations are taught with place value materials so students understand how the standard algorithms work in all grades. Even the mental math instruction uses understanding of place value to model how mental arithmetic can be understood and done. This allows students to learn shortcuts for solving problems and understand why they work. Additionally, because students are given consistent tools for solving problems, they have the opportunity to see the similarities in how different problems are solved and understand efficient means for solving them. Throughout the program, students see regularity with the reasoning and patterns between the four key operations. Students continually evaluate the reasonableness of solutions throughout the program; the consistent models for solving, checking, and self-regulation help them validate their answers.		*This standard is covered throughout the program; the following are examples*. **SE/TE-2A:** 26-30, 31, 32, 88-89, 153-155, 162-167, 173-175, 186-187 **Workbook 2A:** 31A, 32A, 33A, 123C, 123D, 167A, 178A, 188A, 188C **SE/TE-2B:** 166-169, 175-176, 178, 191, 193, 292-296, 298-300, 301-302, 305 **Workbook 2B:** 169A, 178A, 302A, 305A, 305C, 305E

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Standards	Descriptor	Page Citations
Standards for Mathematical Content		
2.OA	**Operations and Algebraic Thinking**	
Represent and solve problems involving addition and subtraction		
2.OA.1	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	**SE/TE-2A:** 96-99, 103-104, 106, 119-113, 115-119, **Workbook 2A:** 102A, 108A, 114A, 121A, 121B, 123A, 123C, 123D, 283D, 283F **SE/TE-2B:** 6-7, 17-19, 40, 122-125, 129 **Workbook 2B:** 19A, 126A, 129A, 305F
Add and subtract within 20		
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.	**SE/TE-2B:** 8-15, 16, 20-26, 27, 40 **Workbook 2B:** 15A, 26A, 41A, 99C

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Standards	Descriptor	Page Citations
Work with equal groups of objects to gain foundations for multiplication		
2.OA.3	Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.	**SE/TE-2A:** **Common Core Focus Lesson Appendix Chapter 7, Lesson 2.a** *This standard is addressed in depth in Grade 3.* **See Grade 3:** **SE/TE-3A:** 224-226, 236 **Workbook 3A:** 226A, 263E
2.OA.4	Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	**SE/TE-2A:** 156-160, 168, 171, 176-178, 187-188 **Workbook 2A:** 161A, 172A, 178A, 188A, 188D **SE/TE-2B:** 170-173, 179, 181-182, 191-192 **Workbook 2B:** 174, 174A, 183, 183A, 193, 247C

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Standards	Descriptor	Page Citations
2.NBT	**Number and Operations in Base Ten**	
Understand place value		
2.NBT.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:	
2.NBT.1.a	100 can be thought of as a bundle of ten tens — called a "hundred."	**SE/TE-2A:** 6-10, 11-12, 17, 18-21, 23, 33, 38-40, 42, 44, 46, 47, 49-50, 61-63, 67-68, 72-74, 76, 78-80, 84-85 **Workbook 2A:** 10A, 17A, 33A, 283E
2.NBT.1.b	The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).	**SE/TE-2A:** 9, 11-13, 16-17, 33 **Workbook 2A:** 17A, 17B, 33A
2.NBT.2	Count within 1000; skip-count by 5s, 10s, and 100s.	**SE/TE-2A:** 6-10, 26-30, 31, 33, 153-155, 162-167, 174-175, 186-187 **Workbook 2A:** 10A, 31A, 32A, 33A, 123C, 167A, 178A, 188A, 188C, 283E
2.NBT.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form	**SE/TE-2A:** 6-10, 11-17, 33, 40-41, 43-45, 47-48, 49-53, 55, 61-65, 67-69, 71, 72-75, 77, 77A, 78-82, 84-88, 90-91 **Workbook 2A:** 10A, 17A, 17B, 33A, 41A, 45A, 48A, 54A, 55A, 66A, 71A, 77A, 83A, 91A, 283E
2.NBT.4	Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	**SE/TE-2A:** 18-21, 23, 33 **Workbook 2A:** 23A, 33A, 123C

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Standards	Descriptor	Page Citations
Use place value understanding and properties of operations to add and subtract		
2.NBT.5	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	**SE/TE-2A:** 41, 65, 96-101, 106, 106, 108, 110, 112-114, 115, 117, 122, 278-281, 283 **Workbook 2A:** 102A, 108A, 114A, 121C, 123A, 123D, 281A, 281B, 283A, 283E, 283G **SE/TE-2B:** 6-8, 13, 15, 16-19, 20, 26, 27, 34-35, 37, 39-40, 122-126, 129 **Workbook 2B:** 15A, 19A, 26A, 126A, 305D
2.NBT.6	Add up to four two-digit numbers using strategies based on place value and properties of operations.	**SE/TE-2A:** 38-41, 42-45, 46-48, 49-54, 55, 61-66, 67-71, 72-77, 78-83, 84-91, 96-102, 103-108, 109-114, 115-121, 122-123, 278-280, 283 **Workbook 2A:** 41A, 41B, 45A, 48A, 54A, 54B, 55A, 66A, 71A, 77A, 83A, 91A, 102A, 108A, 114A, 121A, 121B, 121C, 123A, 123C, 123D, 281A, 281B, 283A, 283E, 283F, 283G **SE/TE-2B:** 6-15, 16-19, 20-26, 27, 34-35, 37, 39-41, 122-126, 129 **Workbook 2B:** 15A, 19A, 26A, 41A, 126A, 129A, 305D, 305E

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Standards	Descriptor	Page Citations	
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	**SE/TE-2A:**	38-40, 42, 44, 46-47, 49-50, 52, 61-63, 67-68, 72-74, 76, 78-80, 84-85, 89, 96-101, 103-107, 109-112, 115-119, 122-123, 278-280, 283
		Workbook 2A:	102A, 108A, 114A, 121A, 121B, 121C, 123A, 123C, 123D, 281A, 281B, 283A, 283D, 283F
		SE/TE-2B:	6-8, 10-14, 17-19, 20-25, 122-125, 129
		Workbook 2B:	15A, 19A, 26A, 126A, 127A, 129A
2.NBT.8	Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.	**SE/TE-2B:**	8 -15, 17, 23-26, 27, 40
		Workbook 2B:	15A, 19A, 26A, 41A, 99C
2.NBT.9	Explain why addition and subtraction strategies work, using place value and the properties of operations.	**SE/TE-2A:**	38-41, 42-45, 46-48, 49-54, 55, 61-66, 67-71, 72-77, 78-83, 84-91, 96-102, 103-108, 109-114, 115-121, 122-123
		Workbook 2A:	41A, 41B, 45A, 48A, 54A, 54B, 55A, 66A, 71A, 77A, 83A, 91A, 102A, 108A, 114A, 121A, 121B, 121C, 123A, 123C, 123D, 283E, 283F, 283G
		SE/TE-2B:	6-15, 16-19, 20-26, 27, 34-35, 37, 39-41, 122-126, 129
		Workbook 2B:	15A, 19A, 26A, 41A, 126A, 129A, 305D, 305E

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Standards	Descriptor	Page Citations
2.MD	**Measurement and Data**	
Measure and estimate lengths in standard units		
2.MD.1	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	**SE/TE-2A:** 192-195, 201-208, 210, 211-212, 214-215 **Workbook 2A:** 195A, 210A, 215A, 223A **SE/TE-2B:** 103-106, 109, 111-117, 118-121, 128 **Workbook 2B:** 106A, 117A, 121A, 129A
2.MD.2	Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.	**SE/TE-2B:** **Common Core Focus Lesson Appendix Chapter 13, Lesson 4.a** *This standard is covered to mastery in Grade 1, additional opportunities to review can be found on pages:* **See Grade 1:** **SE/TE-1A:** 243, 247, 249 **Workbook 1A:** 246, 249A, 249D
2.MD.3	Estimate lengths using units of inches, feet, centimeters, and meters.	**SE/TE-2A:** 194-195, 204 **Workbook 2A:** 195A, 223A **SE/TE-2B:** 104, 105-106, 114 **Workbook 2B:** 106A, 129A

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Standards	Descriptor	Page Citations
2.MD.4	Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.	**SE/TE-2A:** 196-200, 211-215, 222 **Workbook 2A:** 215A, 221A, 223A, 283C **SE/TE-2B:** 107-110, 118-121, 128 **Workbook 2B:** 110A, 121A, 127A, 129A, 158C, 305D
Relate addition and subtraction to length		
2.MD.5	Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.	**SE/TE-2A:** 96-99, 100, 103-104, 106-107, 109-112, 115-119, 122-123, 216-219, 223, 278-280, 283 **Workbook 2A:** 102A, 108A, 114A, 121A, 121B, 121C, 123A, 123D, 220A, 281A, 283A, 283D, 283F **SE/TE-2B:** 122-125, 127, 129, 198, 200, 201-204, 206-215, 218-219 **Workbook 2B:** 126A, 127A, 129A, 200A, 200B, 205, 205A, 216A, 216B, 219A, 305F
2.MD.6	Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.	**SE/TE-2A:** 26, 27, 89, 96-99, 100, 103-104, 106-107, 109-112, 115-119, 122-123, 216-219, 223, 278-280, 283 **Workbook 2A:** 102A, 108A, 114A, 121A, 121B, 121C, 123A, 123D, 220A, 281A, 283A, 283D, 283F **SE/TE-2B:** 28-33, 36, 122-125, 127, 129, 198, 200, 201-204, 206-215, 218-219 **Workbook 2B:** 36A, 126A, 127A, 129A, 200A, 200B, 205, 205A, 216A, 216B, 219A, 305F

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Standards	Descriptor	Page Citations
Work with time and money		
2.MD.7	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	**SE/TE-2B:** 133-136, 137-141, 142, 149, 150-156, 157-158 **Workbook 2B:** 136A, 141A, 149A, 156A, 158A, 158C, 158D, 305D, 305E
2.MD.8	Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.	**SE/TE-2B:** 49, 51, 62, 66-70, 71-72 **Workbook 2B:** 70A, 72A, 99D, 99E, 305D, 305F **SE/TE-2B:** **Common Core Focus Lesson Appendix Chapter 11, Lesson 3.a** *This standard is also covered to mastery in Grade 1.* **See Grade 1:** **SE/TE-1B:** 274-279, 284-289, 290-291, 293 **Workbook 1B:** 289A, 289B, 289C, 291A, 291B, 293A, 293D, 293E

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Standards	Descriptor	Page Citations
Represent and interpret data		
2.MD.9	Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.	**SE/TE-2B:** **Common Core Focus Lesson Appendix Chapter 13, Lesson 4.a** *This standard is addressed in depth in Grade 3.* **See Grade 3:** **SE/TE-3B:** 97-104, 106, 110-111 **Workbook 3B:** 104A, 104B, 104C, 105A, 218D
2.MD.10	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put- together, take-apart, and compare problems4 using information presented in a bar graph	**SE/TE-2B:** 224-231, 233-235, 237, 238-242, 243, 245-247 **Workbook 2B:** 231A, 237A, 237B, 242B, 247A, 247C, 247D, 305F

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Standards	Descriptor	Page Citations
2.G	**Geometry**	
Reason with shapes and their attributes		
2.G.1	Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	**SE/TE-2B:** 262, 264, 271-286, 287, 289-291, 303, 304-305 **Workbook 2B:** 264A, 286A, 286B, 286C, 305A, 305E **SE/TE-2B:** **Common Core Focus Lesson Appendix Chapter 9, Lessons 1.a, 2.a** Pentagons and quadrilaterals are covered in more depth in Grade 3. **See Grade 3:** **SE/TE-3B:** 306-315, 317-318, 338, 340-341 **Workbook 3B:** 318A, 318B
2.G.2	Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	**SE/TE-2B:** 75, 78, 79, 82, 83-88, 91-94, 96, 98-99 **Workbook 2B:** 82A, 82B, 89, 96A, 97, 99A, 99D, 305E
2.G.3	Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.	**SE/TE-2B:** 77-79, 81-82, 83-89, 90-94, 96, 98 **Workbook 2B:** 82A, 82B, 96A, 99A, 99D, 305E

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