

# BENCHMARKS WITH EXAMPLES REPORT

## MATHEMATICS GRADE 2



**Key:** **Status** = Benchmarks designated as "Focus" are aligned to the Terra Nova, third edition. Benchmarks designated "Supporting" are not.  
**OCS Code** = The benchmark code. Consists of Grade (K-8), Domain (2-3 character alpha code), Strand (1-3 character alpha code), Standard (1-9), Benchmark Number (1 or 1-1 and up), and Complexity (a, b, c).  
**CCSS Code** = Common Core State Standards, developed by National Governors Association Center for Best Practices, Council of Chief State School Officers ([www.corestandards.org](http://www.corestandards.org)).  
**CRS Strand** = ACT College Readiness Standards developed by ACT, Inc. ([www.act.org](http://www.act.org)).  
**The CRS Strands are:** BOA = Basic Operations & Applications, PSD = Probability/Statistics/Data, NCP = Numbers/Concepts/Properties, XEI = Expression/Equation & Inequality, GRE = Graphical Representations, PPF = Properties of Plane Figures, MEA = Measurement, FUN = Functions.

DOMAIN: Standards for Mathematical Content				
OCS Code:	Strand: <i>Operations and Algebraic Thinking (OA)</i>	Examples and Notes:	CCSS Code:	CRS Strand:
<b>2.SMC.OA.1</b>	<b>Represent and solve problems involving addition and subtraction.</b>			
2.SMC.OA.1.1-1.b	Add and subtract numbers up to 100 to solve one-step word problems	Note: Create 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.	2.OA.A.1	BOA
2.SMC.OA.1.1-2.b	Add and subtract numbers up to 100 to solve two-step word problems	Note: Create 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.	2.OA.A.1	BOA
<b>2.SMC.OA.2</b>	<b>Add and subtract within 20.</b>			
2.SMC.OA.2.2-1.a	Add and subtract numbers up to 20 mentally		2.OA.B.2	BOA
2.SMC.OA.2.2-2.a	Memorize all sums of two one-digit numbers		2.OA.B.2	BOA
<b>2.SMC.OA.3</b>	<b>Work with equal groups of objects to gain foundations for multiplication.</b>			
2.SMC.OA.3.1-1.a	Determine whether a group of 20 or fewer objects has an odd or even number of members	e.g., By pairing objects or counting them by 2s	2.OA.C.3	NCP
2.SMC.OA.3.1-2.b	Write an equation to express an even number as a sum of two equal addends		2.OA.C.3	BOA
2.SMC.OA.3.2-1.c	Add objects arranged in a rectangular array with up to 5 rows and 5 columns		2.OA.C.4	BOA
2.SMC.OA.3.2-2.c	Write an equation to express the total of a rectangular array with up to 5 rows and 5 columns as a sum of equal addends		2.OA.C.4	BOA
OCS Code:	Strand: <i>Number and Operations in Base Ten (NBT)</i>	Examples and Notes:	CCSS Code:	CRS Strand:
<b>2.SMC.NBT.1</b>	<b>Understand place value.</b>			
2.SMC.NBT.1.1.b	Represent the three digits of a three-digit number in amounts of hundreds, tens, and ones	Note: 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: 100 can be thought of as a bundle of ten tens — called a “hundred.” The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, and nine hundreds (and 0 tens and 0 ones).	2.NBT.A.1	NCP
2.SMC.NBT.1.2.b	Count numbers up to 1000 by skip-counting 5s, 10s, and 100s		2.NBT.A.2	NCP
2.SMC.NBT.1.3-1.b	Read numbers up to 1000 using base-ten numerals, number names, and expanded form		2.NBT.A.3	NCP
2.SMC.NBT.1.3-2.b	Write numbers up to 1000 using base-ten numerals, number names, and expanded form		2.NBT.A.3	NCP
2.SMC.NBT.1.4-1.c	Compare two three-digit numbers based on a breakdown into hundreds, tens, and ones		2.NBT.A.4	NCP

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2.SMC.NBT.1.4-2.c	Record the results of comparisons between two three-digit numbers using the symbols $>$ , $=$ , and $<$		2.NBT.A.4	NCP
<b>2.SMC.NBT.2</b>	<b>Use place value understanding and properties of operations to add and subtract.</b>			
2.SMC.NBT.2.1.b	Add and subtract numbers up to 100 fluently	Note: Apply strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	2.NBT.B.5	BOA
2.SMC.NBT.2.2.b	Add up to four two-digit numbers	Note: Apply strategies based on place value and properties of operations.	2.NBT.B.6	BOA
2.SMC.NBT.2.3-1.b	Add and subtract numbers up to 1000	Note: Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	2.NBT.B.7	BOA
2.SMC.NBT.2.3-2.c	Explain the process of adding and subtracting numbers up to 1000	Note: 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.	2.NBT.B.7	BOA
2.SMC.NBT.2.4-1.c	Add 10 or 100 to a given number between 100 and 900 mentally		2.NBT.B.8	BOA
2.SMC.NBT.2.4-2.c	Subtract 10 or 100 from a given number between 100 and 900 mentally		2.NBT.B.8	BOA
2.SMC.NBT.2.5-1.c	Explain how using place value facilitates addition and subtraction		2.NBT.B.9	NCP
2.SMC.NBT.2.5-2.c	Explain how using the properties of operations facilitates addition and subtraction		2.NBT.B.9	BOA
<b>OCS Code:</b>	<b>Strand: Measurement and Data (MD)</b>	<b>Examples and Notes:</b>	<b>CCSS Code:</b>	<b>CRS Strand:</b>
<b>2.SMC.MD.1</b>	<b>Measure and estimate lengths in standard units.</b>			
2.SMC.MD.1.1.a	Measure the length of an object by selecting and using appropriate tools	e.g., Rulers, yardsticks, meter sticks, and measuring tapes	2.MD.A.1	MEA
2.SMC.MD.1.2.b	Describe how an object measured twice using different measurement units relates to the size of the unit		2.MD.A.2	MEA
2.SMC.MD.1.3.b	Estimate lengths using units of inches, feet, centimeters, and meters		2.MD.A.3	MEA
2.SMC.MD.1.4.c	Determine the difference in length of two objects measured by a standard length unit		2.MD.A.4	MEA
<b>2.SMC.MD.2</b>	<b>Relate addition and subtraction to length.</b>			
2.SMC.MD.2.1.c	Add and subtract up to 100 to solve word problems involving lengths measured using a standard length unit	Note: Use drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.	2.MD.B.5	MEA
2.SMC.MD.2.2-1.b	Represent whole numbers up to 100 as lengths from 0 on a number line diagram with equally spaced points		2.MD.B.6	GRE
2.SMC.MD.2.2-2.b	Represent whole-number sums and differences of two lengths on a number line diagram with equally spaced points beginning at 0 and up to 100		2.MD.B.6	GRE
<b>2.SMC.MD.3</b>	<b>Work with time and money.</b>			
2.SMC.MD.3.1-1.a	Tell the time to the nearest five minutes including A.M. and P.M., using analog and digital clocks		2.MD.C.7	MEA
2.SMC.MD.3.1-2.a	Write the time to the nearest five minutes, including A.M. and P.M., using analog and digital clocks		2.MD.C.7	MEA
2.SMC.MD.3.2.b	Solve word problems using different denominations of cash	e.g., Dollar bills, quarters, dimes, nickels, and pennies; Use \$ and ¢ symbols appropriately; If you have 2 dimes and 3 pennies, how many cents do you have?	2.MD.C.8	MEA



<b>2.SMC.MD.4</b>	<b>Represent and interpret data.</b>			
2.SMC.MD.4.1-1.c	Create a line plot from repeated measures of the length of an object to the nearest whole unit		2.MD.D.9	PSD
2.SMC.MD.4.1-2.c	Create a line plot from measures of the lengths of several objects to the nearest whole unit	Note: The horizontal scale should be marked off in whole-number units.	2.MD.D.9	PSD
2.SMC.MD.4.2-1.c	Represent data from up to four categories on a picture graph and bar chart		2.MD.D.10	PSD
2.SMC.MD.4.2-2.c	Solve problems using information presented in a bar graph	Note: Problems might include simple put together, take-apart, and compare problems.	2.MD.D.10	PSD
<b>OCS Code:</b>	<b>Strand: <i>Geometry (G)</i></b>	<b>Examples and Notes:</b>	<b>CCSS Code:</b>	<b>CRS Strand:</b>
<b>2.SMC.G.1</b>	<b>Reason with shapes and their attributes.</b>			
2.SMC.G.1.1-1.a	Recognize triangles, quadrilaterals, pentagons, hexagons, and cubes		2.G.A.1	MEA
2.SMC.G.1.1-2.b	Draw shapes having a given number of angles, faces, or lengths	e.g., A given number of angles or a given number of equal faces	2.G.A.1	MEA
2.SMC.G.1.2-1.b	Partition a rectangle into rows and columns of same-size squares		2.G.A.2	MEA
2.SMC.G.1.2-2.b	Count the number of same-size squares in a rectangle partitioned into rows and columns		2.G.A.2	MEA
2.SMC.G.1.3-1.c	Partition circles and rectangles into two, three, or four equal shares		2.G.A.3	MEA
2.SMC.G.1.3-2.c	Describe two, three and four equal shares of circles and rectangles using words and phrases	e.g., Halves, thirds, half of, a third of, etc.	2.G.A.3	MEA
2.SMC.G.1.3-3.c	Recognize the shapes of equal shares of identical wholes		2.G.A.3	MEA
<b>DOMAIN: Standards for Mathematical Practices</b>				
<b>OCS Code:</b>	<b>Strand: <i>Solve Problems (MP1)</i></b>	<b>Examples and Notes:</b>	<b>CCSS Code:</b>	<b>CRS Strand:</b>
<b>2.SMP.1</b>	<b>1. Make sense of problems and persevere in solving them.</b>			
2.SMP.1.1-1.c	Make sense of your problem		MP1	
2.SMP.1.1-2.c	Reflect on your thinking as you solve your problem		MP1	
2.SMP.1.1-3.c	Keep trying when your problem is hard		MP1	
2.SMP.1.1-4.c	Check whether your answer makes sense		MP1	
2.SMP.1.1-5.c	Solve problems in more than one way		MP1	
2.SMP.1.1-6.c	Compare the strategies you and others use		MP1	
<b>OCS Code:</b>	<b>Strand: <i>Reason (MP2)</i></b>	<b>Examples and Notes:</b>	<b>CCSS Code:</b>	<b>CRS Strand:</b>
<b>2.SMP.2</b>	<b>2. Reason abstractly and quantitatively.</b>			
2.SMP.2.1-1.c	Create mathematical representations using numbers, words, pictures, symbols, gestures, tables, graphs, and concrete objects		MP2	
2.SMP.2.1-2.c	Make sense of the representations you and others use		MP2	
2.SMP.2.1-3.c	Make connections between representations		MP2	
<b>OCS Code:</b>	<b>Strand: <i>Construct Arguments (MP3)</i></b>	<b>Examples and Notes:</b>	<b>CCSS Code:</b>	<b>CRS Strand:</b>
<b>2.SMP.3</b>	<b>3. Construct viable arguments and critique the reasoning of others.</b>			
2.SMP.3.1-1.c	Make mathematical conjectures and arguments		MP3	
2.SMP.3.1-2.c	Make sense of others' mathematical thinking		MP3	
<b>OCS Code:</b>	<b>Strand: <i>Model (MP4)</i></b>	<b>Examples and Notes:</b>	<b>CCSS Code:</b>	<b>CRS Strand:</b>

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<b>2.SMP.4</b>	<b>4. Model with mathematics.</b>			
2.SMP.4.1-1.c	Model real-world situations using graphs, drawings, tables, symbols, numbers, diagrams, and other representations		MP4	
2.SMP.4.1-2.c	Use mathematical models to solve problems and answer questions		MP4	
<b>OCS Code:</b>	<b>Strand: <i>Use Tools (MP5)</i></b>	<b>Examples and Notes:</b>	<b>CCSS Code:</b>	<b>CRS Strand:</b>
<b>2.SMP.5</b>	<b>5. Use appropriate tools strategically.</b>			
2.SMP.5.1-1.c	Choose appropriate tools		MP5	
2.SMP.5.1-2.c	Use tools effectively and make sense of your results		MP5	
<b>OCS Code:</b>	<b>Strand: <i>Attend to Precision (MP6)</i></b>	<b>Examples and Notes:</b>	<b>CCSS Code:</b>	<b>CRS Strand:</b>
<b>2.SMP.6</b>	<b>6. Attend to precision.</b>			
2.SMP.6.1-1.c	Explain your mathematical thinking clearly and precisely		MP6	
2.SMP.6.1-2.c	Use an appropriate level of precision for your problem		MP6	
2.SMP.6.1-3.c	Use clear labels, units, and mathematical language		MP6	
2.SMP.6.1-4.c	Think about accuracy and efficiency when you count, measure, and calculate		MP6	
<b>OCS Code:</b>	<b>Strand: <i>Use Structure (MP7)</i></b>	<b>Examples and Notes:</b>	<b>CCSS Code:</b>	<b>CRS Strand:</b>
<b>2.SMP.7</b>	<b>7. Look for and make use of structure.</b>			
2.SMP.7.1-1.c	Look for mathematical structures such as categories, patterns, and properties		MP7	
2.SMP.7.1-2.c	Use structures to solve problems and answer questions		MP7	
<b>OCS Code:</b>	<b>Strand: <i>Express Regularity (MP8)</i></b>	<b>Examples and Notes:</b>	<b>CCSS Code:</b>	<b>CRS Strand:</b>
<b>2.SMP.8</b>	<b>8. Look for and express regularity in repeated reasoning.</b>			
2.SMP.8.1.c	Create and justify rules, shortcuts, and generalizations		MP8	