

Standards Correlation: Symphony Math® and Georgia Standards of Excellence

Georgia Performance Standards - Mathematics		Symphony Math	
Standard	Description	Stage References	Concepts
MGSEK.CC.2	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	1.1, 1.3, 1.4, 2.1	Sequencing, Counting Forward, Counting Backward
MGSEK.CC.3	Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).	1.2	Identifying Numbers (connection between models and numbers pervasive throughout curriculum)
MGSEK.CC.4	Understand the relationship between numbers and quantities; connect counting to cardinality.	1.1, 1.2	Sequencing, Identifying Numbers
MGSEK.CC.5	Count to answer “how many?” questions.	1.2, 4.1	Identifying Numbers, Ten as a Unit
MGSEK.CC.6	Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.	2.1-2.5	Find ‘One More’, Find ‘One Less’, Find ‘More’, Find ‘Less’, Same
MGSEK.CC.7	Compare two numbers between 1 and 10 presented as written numerals.	2.1-2.5, 5.1-5.3	Find ‘One More’, Find ‘One Less’, Find ‘More’, Find ‘Less’, Same, Equals, Greater Than, Less Than
MGSEK.OA.1	Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	3.1-3.7	Addition & Subtraction to sums of 5, with models, numbers, auditory, and written expressions

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MGSEK.OA.2	Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.	3.1-3.7, 4.1, 4.2, 4.4	Addition & Subtraction to sums of 5, and parts of 10, with models, numbers, auditory, and written expressions
MGSEK.OA.3	Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation. (drawings need not include an equation).	3.1-3.7, 4.1-4.4	Addition & Subtraction to 10 with fact families, multiple solutions
MGSEK.OA.4	For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.	4.1-4.4	Ten as a Unit, Making 10, 10 Plus, Subtraction with 10
MGSEK.OA.5	Fluently add and subtract within 5.	3.1—3.4, MR 1, MR 2	Addition & Subtraction to sums of 5, in both conceptual and fluency environments
MGSEK.NBT.1	Compose and decompose numbers from 11 to 19 into ten ones and some further ones to understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$)	4.3, 4.4	Ten Plus, Subtracting with 10
MGSEK.MD.1	Describe several measurable attributes of an object, such as length or weight. For example, a student may describe a shoe as, “This shoe is heavy! It is also really long!”	2.1-2.5	Find ‘More’, Find ‘Taller’, Find ‘Shorter’, etc.
MGSEK.MD.2	Directly compare two objects with a measurable attribute in common, to see which object has “more of” or “less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.	2.1-2.5	Find ‘One More’, Find ‘One Less’, Find ‘More’, Find ‘Less’, Same
MGSE1.OA.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	3.1-3.4, 4.1, 4.3, 6.1-6.4	Solve word problems using models and/or number sentences.

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MGSE1.OA.3	Apply properties of operations as strategies to add and subtract. Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)	3.7, 6.5	Commutative Property, Fact Families
MGSE1.OA.4	Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8. Add and subtract within 20.	3.4, 6.4	Beginning Subtraction: Missing Change, Advanced Subtraction: Missing Change
MGSE1.OA.6	Add and subtract within 20.	3.1-3.4, 4.1-4.4, 6.1-6.4, MR 3, MR 4	Addition & Subtraction to 5, Ten as a Unit, Addition & Subtraction to 20, fact fluency to 20
MGSE1.OA.7	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.	3.1-3.4, 4.1-4.4, 6.1-6.6	Equals sign presented on left and right side of number sentences throughout the program
MGSE1.OA.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = _ - 3$, $6 + 6 = _$.	3.2, 3.4, 6.2, 6.4	Missing part addition and subtraction with sums to 20; Equal sign on left and right
MGSE1.NBT.1	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	7.1-7.5	Working with tens, adding and subtracting tens, identifying multi-digit numbers
MGSE1.NBT.2	Understand that the two digits of a two-digit number represent amounts of tens and ones. a) 10 can be thought of as a bundle of ten ones – called a “ten.” b) The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.	4.1, 4.3, 7.1-7.3	Introducing 10, Ten Plus, Identifying 10s, Making 10s, Count Forward and Backward by 10s
MGSE1.NBT.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.	5.2, 5.3, 7.9	Greater Than, Less Than, Comparing 10s

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MGSE1.NBT.4	Add within 100, including adding a two-digit number and a one-digit number and adding a two-digit number and a multiple of ten (e.g., $24 + 9$, $13 + 10$, $27 + 40$), using concrete models or drawings and strategies based on place value, properties of operations, and/or relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	7.7, 8.1, 8.2, 8.8	Combinations of 100; Place Value Addition: Missing Result, Missing Change; Adding with Multiples of 10 - No Regrouping
MGSE1.NBT.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	8.5-8.7	Parts-to-Whole with 1s and 10s (multiple solutions, +10, and -10)
MGSE2.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.	8.1-8.4	Place Value Addition: Missing Result and Missing Part; Place Value Subtraction: Missing Result and Missing Change
MGSE2.OA.2	Fluently add and subtract within 20 using mental strategies. ² By end of Grade 2, know from memory all sums of two one-digit numbers.	MR 1, MR 2, MR 3, MR 4, MR 5, MR 6	Add & Subtract Fluency to Sums of 5, 10, and 20 - Missing Sums and Missing Parts
MGSE2.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.	9.1, 9.4, 9.5, 10.5	Identifying 100s, Find '100 More', Find '100 Less', Parts-to-Whole with 1s, 10s, and 100s
MGSE2.NBT.2	Count within 1000; skip-count by 5s, 10s, and 100s	9.2, 9.3, 11.1	Making 100s, Count Forward and Backward by 100, Skip Counting
MGSE2.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.	10.8	Comparing 3-digit Numbers
MGSE2.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.	12.2-12.5	Regrouping with 2-digit Numbers to 100: Addition, Subtraction, Missing Result and Missing Change

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MGSE2.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.	10.1-10.4, 12.6-12.7	Place Value Addition & Subtraction: Missing Result and Missing Change; Regrouping with 3-digit Numbers to 1000: Addition and Subtraction
MGSE2.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.	MR 7, MR 8	Fluency with Addition & Subtraction Facts to 200 (i.e. $90 + 20 = ?$)
MGSE2.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.	8.1-8.4	Place Value Addition: Missing Result and Missing Part; Place Value Subtraction: Missing Result and Missing Change
MGSE2.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.	All Stages	Number Lines used extensively throughout curriculum. Students use number lines with points 1, 10, and 100 correspondence.
MGSE3.OA.1	Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each.	11.3, 13.1-3, 15.1-3	Equal Groupings; Multiplication, Unknown Product, Unknown Number of Groups, Unknown Size of Group
MGSE3.OA.2	Interpret whole number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares (How many in each group?), or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each (How many groups can you make?). For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.	13.4-13.6, 15.4-6	Division, Missing Dividend, Missing Divisor
MGSE3.OA.3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	13.1-3, 15.1-3, 13.4-13.6, 15.4-6	Multiplication, Unknown Product, Unknown Number of Groups, Unknown Size of Group; Division, Missing Dividend, Missing Divisor

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MGSE3.OA.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers using the inverse relationship of multiplication and division. For example, determine the unknown number that makes the equation true in each of the equations, $8 \times ? = 48$, $5 = \square \div 3$, $6 \times 6 = ?$.	13.2-3, 15.2-3, 13.5-13.6, 15.5-6	Multiplication, Unknown Product, Unknown Number of Groups, Unknown Size of Group; Division, Missing Dividend, Missing Divisor
MGSE3.OA.5	Apply properties of operations as strategies to multiply and divide.	13.7-8	Multiplication and the Commutative Property, Multiplication and the Distributive Property
MGSE3.OA.6	Understand division as an unknown-factor problem.	13.5-13.6, 15.5-6	Division, Missing Dividend, Missing Divisor
MGSE3.OA.7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	MR 9, MR 10	Fluency with Multiplication and Division Facts to 100
MGSE3.NBT.2	Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	12.6-7, MR 7, MR 8	Regrouping with 3-digit Numbers to 1000: Addition and Subtraction; Fluency with Addition & Subtraction Facts to 200 (i.e. $90 + 20 = ?$)
MGSE3.NBT.3	Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.	16.1-16.5	Multiplication and Division with 1, 10, and 100, including 1 digit x multiples of 10
MGSE3.NF.1	Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts (unit fraction); understand a fraction a/b as the quantity formed by a parts of size $1/b$. For example, $3/4$ means there are three $1/4$ parts, so $3/4 = 1/4 + 1/4 + 1/4$	14.1-14.3	Making a Whole, Unit Fractions of 1, Non-Unit Fractions of 1
MGSE3.NF.2	Understand a fraction as a number on the number line; represent fractions on a number line diagram.	14.1-14.3	Making a Whole, Unit Fractions of 1, Non-Unit Fractions of 1
MGSE3.NF.3	Explain equivalence of fractions through reasoning with visual fraction models. Compare fractions by reasoning about their size.	14.4, 14.5	Whole Numbers as Fractions, Comparing Fractions

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MGSE4.NBT.1	Recognize that in a multi-digit whole number, a digit in any one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.	16.1-16.3	Multiplication and Division with 1, 10, and 100
MGSE4.NBT.5	Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	16.1-16.3	Multiplication and Division with 1, 10, and 101
MGSE4.OA.1	Understand that a multiplicative comparison is a situation in which one quantity is multiplied by a specified number to get another quantity.	13.1-13.6, 15.1-15.8, 16.1-16.5	Emphasis on decyphering 3×5 as “3 groups of 5”, and also fact families, which demonstrate equality of 3×5 and 5×3
MGSE4.NF.1	Explain why a fraction a/b is equivalent to a fraction $(n \cdot a)/(n \cdot b)$ by using visual fraction models. Focus attention on how the number and size of the parts differ even though the fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	17.1	Equivalent Fractions
MGSE4.NF.2	Compare two fractions with different numerators and different denominators, e.g., by using visual fraction models, by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1/2$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.	17.2	Comparing Fractions
MGSE4.NF.3	Understand a fraction a/b with a numerator > 1 as a sum of fractions $1/b$.	17.3-17.6, 18.1-18.4, 20.1-20.4	Addition and Subtraction with Unit Fractions, Addition and Subtraction with Non-Unit Fractions, Composing and Decomposing Fractions Greater than 1 Whole
MGSE4.NF.5	Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.	19.1, 19.2	Decimals and 100th, Addition of Decimals

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MGSE4.NF.6	Use decimal notation for fractions with denominators 10 or 100.	19.3	Decimal / Fraction Equivalence