Grade K Math Curriculum Map
First Trimester

Topics/ Standards (Approximate time frame)	Skills	Useful Resources	Vocabulary
Counting & Cardinality K.CC.1 K.CC.3 K.CC.4a K.CC.4b (approximately 25 days)	● Count orally by ones to 25 ● Recognize and write numbers 0 to 5 ● Count objects by touching them singularly while saying the number name 1 to 5 ● Recognize the last number named and tell the number of objects counted, regardless of their arrangement, with up to 5 objects	**Counting & Cardinality Lessons** * Choral Counting * Counting Circles * Count objects * Math Module 1 Topics C & D * Go Math Chapter 1 **Literature Suggestions** * Two Ways to Count to 10 by Ruby Dee * Ten Black Dots by Donald Crews	* compare * count (forwards, backwards) * match * number * number words: zero, one, two, three, four, five * numeral * order * same/equal * sequence
Geometry K.G.1 K.G.2 (approximately 8 days)	● Describe objects in the environment using names of shapes and describe positions of these objects, such as above, below, beside, in front of, behind, next to ● Correctly name shapes regardless of their orientation and size (circle, square, triangle, hexagon)	**Shape Lessons** * Correctly Name Shapes * Go Math Chapter 9 * Math Module 2 -Topic A **Literature Suggestions** * The Greedy Triangle by Marilyn Burns Sam Baker * Gone West by Elaine Rahpael	prepositions (positional words) * above * behind * below * beside * in front of * next to * under
Measurement and Data K.MD.3 (approximately 5 days)	● Classify objects into a given category (sort)	* Sorting Objects **Measurement and Data Lessons** * Go Math chapter 12 * Math Module 2 & 6 -Topic B **Literature Suggestions** * The Button Box by Margarette Reid	* attribute * big * color * heavier * lighter * longer * shorter * small * taller

			* category * classify * sort
Counting & Cardinality K.CC.1 K.CC.2 K.CC.3 K.CC.4a K.CC.4b K.CC.4 (approximately 21 days)	● Count orally by ones to 50 ● Count forward beginning from a given number within the known sequence ● Recognize and write numbers 0 to 10 ● Count objects by touching them singularly while saying the number name 0 to 10 ● Recognize the last number named and tell the number of objects counted, regardless of their arrangement, with up to 10 objects ● Using numbers 0 to 10 understand that each successive number name refers to a quantity that is one more	**Counting & Cardinality Lessons** * Math Module 1 topics E, F, and G * Math Module 3 * Go Math Chapters 3 & 4 **Literature Suggestions** * Spaghetti and Meatballs for All by Marilyn Burns * Only One by Marc Harshman	* greater than (more, larger) * less than (fewer) * number words: six, seven, eight, nine, ten * circle * compare * compose

Grade K Math Curriculum Map
Second Trimester

Topic /Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Geometry K.G.2 K.G.3 (approximately 10 days)	● Correctly name shapes regardless of their orientation and size (cube, cone, cylinder, sphere) ● Identify shapes as two dimensional (flat) or three dimensional (solid)	**Geometry Lessons** * Math Module 2, Topics A, B, & C * Go Math Chapter 10	* cone * cube * cylinder * different * hexagon * rectangle * shape * sides * sphere * surface (curve, flat) * three-dimensional * triangle * two-dimensional * vertex/vertices
Operations & Algebraic Thinking K.OA.1,2 K.OA.3 (approximately 16 days)	● Represent and solve addition word problems with objects, fingers, and drawings within 5 ● Decompose numbers less than or equal to 10 using objects or drawings and record using drawings or equations	**Operations & Algebraic Thinking Lessons** * Math Module 4, Topics A, B & E * Go Math Chapter 5	
Counting & Cardinality K.CC.1 K.CC.1 K.CC.3 K.CC.4 a K.CC.4b K.CC.4d	● Count orally by ones to 75 ● Count orally by tens to 50 ● Recognize numbers 0-20 ● Write numbers 0-20 ● Count objects by touching them singularly, while saying the number names 0-15 ● Recognize the last number	**Counting & Cardinality Lessons** * Math Modules 3 & 5 * Go Math Chapters 2 & 8 **Literature Suggestions** * How Much is a Million? by David Schwartz * 100 Hungry Ants by Eleanor	* compare * greater * less * same * number * match * more * fewer

K.CC.6 (approximately 20 days)	named and tell the number of objects counted, regardless of their arrangement, with up to 15 objects ● Identify ordinal numbers 1st-5th ● Compare two sets of objects and identify greater, less or equal	Pinczee	* tens * twenty * fifty
Geometry K.G.4 (approximately 5 days)	● Analyze and compare two and three dimensional shapes	**Geometry Lessons** * Math Module 6, Topics A & B * Go Math Chapter 10 **Literature Suggestions** * Who Sank the Boat? by Pamela Allen	* positional words * flat * surface * roll * slide * stack
Operations & Algebraic Thinking K.OA 1, 2 (approximately 12 days)	● Represent and solve addition word problems with objects, fingers, and drawings within 10. ● Represent and solve subtraction word problems with objects, fingers, and drawings within 5	**Operations & Algebraic Thinking Lessons** * Math Module 4, Topics C, D, F, G & H * Go Math Chapters 5, 6	* add * is equal to * plus * minus * subtract

Grade K Math Curriculum Map
Third Trimester

Topic /Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Number and Operations Base Ten K.NBT.1 (approximately 10 days)	● Compose and decompose numbers 11-19 from a group of ten ones and additional ones using objects	**Number & Operations Base Ten Lessons** * Math Module 5, Topics A, B, & C * Go Math Chapter 7	* eleven * twelve * thirteen * fourteen * fifteen * sixteen * seventeen * eighteen * nineteen
Counting & Cardinality K.CC.1 K.CC.1 K.CC.3 K.CC.4d K.CC.5 K.CC.7 (approximately 5 days)	● Count orally by ones to 100 ● Count orally by tens to 100 ● Recognize and write numbers 0-20 ● Identify ordinal numbers 6th -10th ● Recognize the last number named and tell the number of objects counted, up to 20 objects ● Compare two written numbers between 1- 10 and state which is more or less	**Counting & Cardinality Lessons** * Math Module 5, Topic E * Go Math Chapters 2 & 8 **Literature Suggestions** * From 1 to 100 by Terri Sloat	* set * digits * before * after
Geometry K.G.5 K.G.6 (approximately 4 days)	● Model shapes in the world by building and drawing shapes ● Compose simple shapes to form larger shapes	**Geometry Lessons** * Math Module 6 * Go Math Chapter 9	* attribute * solid * flat

Measurement & Data K.MD.1 K.MD.2 (approximately 6 days) K.MD.4	● Describe measurable attributes of objects ● Compare measurable attributes of objects and describe the difference • Explore coins (pennies, nickels, dimes, quarter) • Identify pennies, nickels, dimes, quarters. • Relate coins to numbers and operations	**Measurement and Data Lessons** * Math Module 3, Topics A-H * Math Module 6 * Go Math Chapter 11	* length * weight * size
Operations & Algebraic Thinking K.OA.1, 2 K.OA.4 K.OA.5 (approximately 13 days) K.OA.6	● Represent and solve addition & subtraction word problems with objects, fingers, and drawings within 10 ● Add any number from 1-9-find the number that makes 10 when added to the given number ● Fluently add and subtract numbers within 5 • Duplicate, extend, and create simple patterns using concrete objects	**Operations & Algebraic Thinking Lessons Lessons** * Math Module 4 Topics C, D, F, G, H * Go Math Chapters 5, 6 **Literature Suggestions** * 12 Ways to get to 11 by Eve Marriam * 10 for Dinner by Joe Allen Bogart * 10 Sly Piranhas by William Wise	* addend * equation * five frame * ten frame * count on * count back * make 10
Number & Operations Base Ten K.NBT.1 (approximately 10 days)	● Record the composition and decomposition from numbers 11-19	**Number & Operations Base Ten** * 5 Topics A, B, & C * Go Math Chapter 7 **Literature Suggestions** * Peter's Pockets by Eve Rice	* compose * decompose * ones * tens

Grade 1 Math Curriculum Map
First Trimester

Topic /Standards **(Approximate Time Frame)**	**Key Ideas**	**Useful Resources**	**Vocabulary**
NY-1.OA.1 Use addition and subtraction within 20 to solve one-step word problems involving situations of adding to, taking from, putting together, taking apart, and/or comparing, with unknowns in all positions. NY - 1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20 NY - 1.OA.3 Apply properties of operations as strategies to add and subtract. NY - 1.OA.5 Relate counting to addition and subtraction	●use pictures and concrete objects and the strategy make a model to solve “adding to” and “putting together” addition problems. ●understand, apply, and explore the Additive, Identity Property for Addition and the Commutative Property of Addition. ●Model and record all the ways to put together numbers within 10. ●Build fluency for addition within 10. ●Use pictures and concrete objects and the strategy make a model to solve “taking from” and taking apart” subtraction problems. ●compare pictorial groups to understand subtraction ●identify how many are left when subtracting all or 0. ●Model and compare groups to show the meaning of subtraction ●Model and record all the ways to take apart numbers within 10 ●build fluency for subtraction within 10 ●understand and apply the Commutative Property of Addition for sums within 20. ●use the following strategies to find sums within 20	Go Math Chapters 1, 2, 3, 4 Useful Tools/Representations: -Number bonds -Tape Diagrams -Tens frame/Five Frame -Number path -Counters -Connecting cubes -Rekenrek -Number balance Useful Resources for teacher: Go Math iTools National Library of Virtual Manipulatives K-5 Math Teaching Resources *Go to CCSS folder/1 st grade math for more useful links and resources on CCSD Server.	Count on Add Addend Addition sentence Is equal to = Plus Sum Part Whole Total Equation Expression Subtract Minus Difference Fewer Doubles Doubles plus one/minus one More Number bond part/part/whole Count back Subtraction sentence Digit Make a ten Order Add to Take apart Put together Take from Take away A ten

	●use doubles to create equivalent but easier sums ●use a ten frame to add 10 and an addend less than 10 ●understand and apply the Associative Property or Commutative Property of Addition to add three addends ●solve adding to and putting together situations using the strategy draw a picture ●use the following strategies to find differences within 20 ●recall addition facts to subtract numbers within 20 ●subtract by breaking apart to make ten ●solve subtraction problem situations using the strategy to act it out		Ones Equals Equal to Partners to ten

Grade 1 Math Curriculum Map
Second Trimester

Topic /Standards **(Approximate Time Frame)**	**Key Ideas**	**Useful Resources**	**Vocabulary**
NY-1.OA.6 Add and subtract within 20. NY-1.OA.4 Understand subtraction as an unknown addend problem within 20. NY-1.OA.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false NY-1.OA.8 Determine the unknown whole number in addition or subtraction with the unknown in all positions NY-1.MD.1 Order three objects by length, compare the lengths of two objects indirectly by using a third object. NY-1.MD.3a Tell and write time in hour and half hours using analog and digital clocks. NY-1.MD.2 Measure length of an object using same size “length units” placed end to end with no gaps or overlaps. Express the length of an object as a whole	●Solve addition and subtraction problem situations using the strategy make a model ●identify and record related facts within 20 and use them to subtract ●apply the inverse relationship of addition and subtraction ●represent equivalent forms of numbers using sums and differences within 20 ●determine if an equation is true of false ●add and subtract facts within 20 and demonstrate fluency for addition and subtraction within 10 ●Use models and write to represent equivalent forms of tens and ones through 120 ● use objects, pictures, and numbers to represent numbers to 100 ●solve problems using the strategy make a model ●count, read, and write numerals to represent a number of 100 to 120 objects. ●order objects by length ●use transitivity Principle to measure indirectly Make a nonstandard measuring tool to measure length ●solve measurement problems	Go Math Chapters 5, first half of 6, 9, 10 Useful Tools/Representations: -Number bonds -Tape Diagrams -Tens frame/Five Frame -Number path -Counters -Connecting cubes -Rekenrek -Number balance Useful Resources for teachers: 2 Go Math iTools National Library of Virtual Manipulatives K-5 Math Teaching Resources *Go to CCSS folder/1 st grade math for more useful links and resources on CCSD Server.	Related facts Five groups (frame) Teen numbers Place value Numerals Ones Tens Hundreds Tally Tally marks Bar graph Picture graph Length unit Longest Shortest Less than Longer than More than Shorter than O’clock Half past Half hour Hour Hour hand Minute Minute hand

number of “length units” NY-1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer more questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. NY-1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. NY-1.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. NY-1.NBT.4 Add within 100, including a two-digit number and one-digit number, a two-digit number and a multiple of 10	using the strategy act it out. ●solve measurement problems using the strategy act it out ●tell time and write time to the hour and half hour ●analyze and compare data shown in a picture graph where each symbol represents one ●make a picture graph ●analyze and compare data shown in a bar graph or a tally chart ●make a bar graph or a tally chart ●solve problem situations using the strategy make a graph		

Grade 1 Math Curriculum Map
Third Trimester

Topic /Standards **(Approximate Time Frame)**	**Key Ideas**	**Useful Resources**	**Vocabulary**
NY-1.NBT.1 Count to 120, starting at any number less than 120. In this range, read and represent a number of objects with a written numeral. NY-1.MD.3b Recognize and identify coins (penny, nickel, dime, and quarter) and their value and use the cent symbol NY-1MD.3c Count a mixed collection of dimes and pennies and determine the cent value (not to exceed 100 cents) NY-1.NBT.6 Subtract multiples of 10 from multiples of 10 in the range of 10-90 using concrete models or drawings, and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction NY-1.G.1 Distinguish between defining attributes versus non-defining attributes for a wide variety of shapes. Build and/or draw shapes to possess defining attributes.	●model and compare two-digit numbers using symbols ●solve problems using the strategy make a model ●identify numbers that are 10 less or 10 more than a given number ●add or subtract within 20 ●use and draw models and manipulatives to add two digit numbers ●solve and explain two digit addition word problems using the strategy draw a picture ●identify and describe three dimensional shapes according to defining attributes ●compose a new shape by combining three dimensional shapes ●use composite three dimensional shapes to build new shapes ●identify three dimensional shapes used to build a composite shape using the strategy act it out ●identify two dimensional shapes on three dimensional shapes ●describe attributes of two dimensional shapes and use defining attributes to sort shapes ●compose a new shape by combing two dimensional shapes ●make a new shapes from	Go Math chapters: second half of 6, 7, 8, 11, 12 Useful Tools/Representations: -Paper clips -cm cubes -Metric and Standard rulers -Classroom objects -Color tiles -Analog and Digital clocks Useful Resources for teachers: Go Math iTools National Library of Virtual Manipulatives K-5 Math Teaching Resources *Go to CCSS folder/1 st grade math for more useful links and resources on CCSD Server	Less than, greater than, equal to <, >, = Compare Symbols Tens Ones Hundreds Place Value Two digit numbers Comparison problem type Penny, nickel, dime, quarter ¢(cents) Three-dimensional shapes Cone Cube Cylinder Sphere Rectangular prism Two-dimensional shapes Circle Hexagon Rectangle Rhombus Square Trapezoid Triangle Quarter circle Quarter Flat surface Solid Vertices (corners)

NY.1.G.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. NY-1.G.3 Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.	composite two dimensional shapes using the strategy act it out ●decompose combined shapes into shapes ●identify equal and unequal parts or shares in two dimensional shapes ●partition circles and rectangles into two or four equal shares		Sides Curved surface Fourth of, fourths Half of, halves Quarter of, quarters

Grade 2 Math Curriculum Map
First Trimester

Topic /Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Number & Operations in Base Ten NY.2.NBT.1a NY.2.NBT.1b NY.2.NBT.2 NY.2.NBT.3 NY.2.NBT.4 NY.2.NBT.8 (Chap. 1 - 12 days) (Chap. 2- 16 days) **Operations & Algebraic Thinking** NY.2.OA.3 (Chap. 3- 15 days) **Numbers & Operations in Base Ten** NY.2.NBT.5 NY.2.NBT.6 NY.2.NBT.9 (Chap. 4- 18 days)	**Place Value, Counting and Comparison of numbers to 1,000** ● Forming Base Ten Units of Ten, a Hundred, and a Thousand ● Understand Place Value Units of One, Ten, and Hundred ● 3 Digit Numbers in Unit, Numeral, Expanded, and Word Form ● Model Base Ten Numbers with 1,000 and money ● Modeling Numbers within 1,000 with Place Value Disks ● Comparing two 3 Digit Numbers ● Finding One, Ten, Hundred more or less than a number **Foundations of Multiplication and Division** ● Formation of Equal Groups ● Meaning of Even & Odd Numbers **Sum and Difference to 20** ● Foundation Add/Sub within 20 ● Mental Strategies	Go Math Chapter 1 – Number Concepts Go Math Chapter 2 – Place Value Go Math Chapter 3 – Numbers to 1,000 Module 3 Math Sprints – Math Facts in a Flash Links: Place Value http://www.k-5mathteachingresources.com/2nd-grade-number-activities.html https://www.teachingchannel.org/videos/second-grade- math-lesson http://www.sheppardsoftware.com/math.htm Module 6 Links: https://www.engageny.org/resource/grade-2- mathematics-module-6 Equal Groups and Arrays Go Math Chapter 4 Go Math Chapter 5 Module 1 Links https://www.engageny.org/resource/grade-2-mathematics-module-1	Base ten numerals Expanded form Hundreds place One thousand Place value or number disk Standard form Unit form Word form Array Columns Even number Odd number Repeated addition Rows Tessellation Whole number Expression Make ten and subtract from ten Number bond Say Ten counting Ten plus Addend

NY.2.OA.2b *Fluency-Add & Subtract Within 20 Using Mental Strategies CC.2.OA.2	• Add/Sub within 20 • Strategies for Add/Sub within 100	http://www.sheppardsoftware.com/math.htm	Addition Bundle, unbundle, regroup, rename Compose Decompose Difference

Grade 2 Math Curriculum Map
Second Trimester

Topic /Standards (Approximate Time Frame)	**Key Ideas**	**Useful Resources**	**Vocabulary**
Operations & Algebraic Thinking NY.2.OA.1a,b NY.2.OA.2a NY.2.OA.4 (Chap. 5- 16 days) Number & Operations in Base Ten NY.2.NBT.7 (Chap. 6- 20 days) Measurement & Data NY.2.MD.1 NY.2.MD.2 NY.2.MD.3 NY.2.MD.4 (Chap 7- 14 days) NY.2.MD.5 NY.2.MD.6 NY.2.MD.7 NY.2.MD.8 NY.2.MD.9 (Chap 8- 12 days)	**Addition and Subtraction Within 200 with Word Problems to 100** ● Sums & Differences within 100 ● Strategies for composing a ten ● Strategies for decomposing a ten ● Strategies for Composing Tens and Hundreds ● Strategies for decomposing Tens & Hundreds ● Students Explanations of Written Methods **Addition and Subtraction within 200 with Word Problems to 100** ● Sums & Differences within 100 ● Strategies for composing a ten ● Strategies for decomposing a ten ● Strategies for Composing Tens and Hundreds ● Strategies for decomposing Tens & Hundreds ● Students Explanations of	Module 4 Links Https://www.engageny.org/resource/grade-2-mathematcs-module-4 http://www.ixl.com/math/grade-2 Math Sprints - Reflex Math Go Math Chapter 6- Three Digit Addition and Subtraction with regrouping Module 4 Math Sprints – Math Facts in a Flash Links https://www.engageny.org/resource/grade-2-mathematics-module-4 http://www.ixl.com/math/grade-2 Module 5 Math Sprints – Math Facts in a Flash Links https://www.engageny.org/resource/grade-2-mathematics-module-5 http://www.ixl.com/math/grade-2 Go Math Chapter 7 – Time & Money Go Math Chapter 8 – Length in Customary Units	Equation Minuend New groups below Place value chart Place value or number disk Subtrahend Totals below Algorithm Compensation Compose Decompose New groups below Simplifying strategy Rename Endpoint Overlap Ruler Centimeter Meter Meter strip Meter stick Hash mark

	Written Methods **Addition and Subtraction with 1,000 with Word Problems to 100** ● Strategies for Addition/Subtraction within 1,000 ● Strategies for composing Tens/Hundreds ● Strategies for decomposing ● Tens/Hundreds with 1,000 ● Strategies for student Explanations for choice of solution methods **Addition and Subtraction of Length Units** ● Understand Ruler Concepts ● Measure/Estimate Length Using Different Measurement Tools ● Measure/Compare Lengths Using different Length Units ● Relate Addition/Subtraction to Length **Problem Solving with Length, Money, and Data** ● Problem Solving with Categorical Data ● Problem Solving with Coins and Bills ● Creating and Inch Ruler ● Measuring and estimating Length Using Customary & Metric	Module 2 Math Sprints – Reflex Math Links https://www.engageny.org/resource/grade-2-mathematics-module-2 Module 7 Math Sprints – Reflex Math Links https://www.engageny.org/resource/grade-2-mathematics-module-7 Data Module 8 Math Sprints – Reflex Math Links https://www.engageny.org/resource/grade-2-mathematics-module-8	Number line Estimate Benchmark Length Height Length unit Combine Compare Tape diagram Bar graph Category Data Degree Inch, Foot, Yard Legend Line plot Picture graph Scale Survey Symbol Table Thermometer a.m./p.m. analog clock angle digital clock parallel parallelogram polygon quadrilateral quarter past, quarter to right angle Second thirds, fourths whole

NY.2.OA.2b *Fluency-Add & Subtract within 20 Using Mental Strategies	Units ● Problem Solving with Customary and Metric Units ● Displaying Measurement and Data **Time** ● Attributes of Geometric Shapes ● Composite Shape and Fraction Concepts ● Halves, Thirds, and Fourths of circles and rectangles ● Application of Fractions to tell time		

Grade 2 Math Curriculum Map
Third Trimester

Topic /Standards (Approximate Time Frame)	**Key Ideas**	**Useful Resources**	**Vocabulary**
Measurement & Data NY.2.MD.1 NY.2.MD.2 NY.2.MD.3 NY.2.MD.4 NY.2.MD.5 NY.2.MD.6 NY.2.MD.10 (Chap 9- 10 days) (Chap. 10- 10 days)	**Problem Solving with Length, Money, and Data** ● Problem Solving with Categorical Data ● Problem Solving with Coins and Bills ● Creating and Inch Ruler ● Measuring and Estimating Length Units ● Problem Solving with Customary and Metric Units ● Displaying Measurements and Data	Go Math Chapter 9 – Length in Metric Units Go Math Chapter 10 – Data Module 7 Links https://www.engageny.org/resource/grade-2-mathematics-module-7 http://www.learninggamesforkids.com/2nd- grade-math.html	Bar graph Category Data Degree Foot Inch Legend Line plot Picture graph Scale Survey Symbol Table Thermometer a.m./p.m. analog clock angle digital clock
Geometry and Fraction Concepts NY.2.G.1 NY.2.G.2 NY.2.G.3 NY.2.MD.7 (Chap. 11- 13 days)	**Time, Shapes, and Fractions** ● Attributes of Geometric Shapes ● Composite Shape and Fraction Concepts ● Halves, Thirds, and Fourths of Circles and Rectangles ● Application of Fractions to tell time	Go Math Chapter 11- Geometry and Fraction Concepts Module 8 Links https://www.engageny.org/resource/grade-2- mathematics-module-8 http://www.learninggamesforkids.com/2nd- grade-math.html	parallel parallelogram polygon quadrilateral quarter past, quarter to right angle
Foundations of Multiplication and Division NY.2.OA.3 NY.2.OA.4 NY.2.G.2	**Foundations of Multiplication and Division** ● Formation of Equal Groups	Module 6 Links https://www.engageny.org/resource/grade-2-	Array Columns Repeated addition Rows Tessellation

(Module 6- 12 days) NY.2.OA.2b *Fluency- Add& Subtract within 20 Using Mental Strategies CC.2.OA.2	• Arrays & Equal Groups • Rectangular Arrays as a Foundation	mathematics-module-6 Math Sprints - Reflex Math	

Grade 3 Math Curriculum Map
First Trimester

Topic /Standards (Approximate Time Frame)	**Key Ideas**	**Useful Resources**	**Vocabulary**
Multiplication & Division w/ Factors of 2,3,4,5 &10 NY.3.OA1 through 3.OA9 Approximate time 25 days	Understand, relate, interpret, model, apply multiplication & division ● Equal groups ● Arrays ● Commutative property ● Associative property ●Distributive property ● Decomposing units ● Finding unknown factors ● Related facts ● Repeated addition/subtraction ●Skip counting Solve word problems involving all four operations & interpret answers. ●Tape diagrams ● Bar models ●Close reading ● RDW Model	3.OA1, 2, 3 Multiplication and Division 3.OA.A.2 Understanding Division 3.OA.A.2 (Interpret Division. How many in a group/how many groups) 3.OA.D.8 Problem Solving Module 1 Go Math- Ch. 3,4,5 – Multiplication Ch. 6,7 - Division	Array Column Commutative property Equal groups Equation Distributive property Divide/division Decompose Unknown factor Factors Product Quotient Divisor Dividend Addend
Place Value and Problem Solving with Units of Measurement NY.3.NBT 1,2,,8 and 3.MD 1,2 Approximate 5 days for Time Approximate 5 days for Measurement Approximate time 10 days for Problem Solving	Understand, interpret, and apply telling time the nearest 5 and 1 minute intervals. ● Skip count by 5 ● Number line ● Elapsed time within 1 hour	3.MD 1 & 2 Time and Measurement	Analog clock Capacity Compose Continuous Endpoint Gram Halfway Interval

NY.NBT.3.4.A NY.NBT.3.4B	• Solve word problems with elapsed time forward/backward (number line & clock) Measure weight & units & liquid volume in metric units ● Grams (g) ● Kilograms (kg) ● Liters (l) ● Use benchmark visuals Ex. Paperclip =gram Dictionary = kilogram Water bottle = liter Add, subtract, multiply, & divide to solve one step word problems involving masses or volumes with the same units within 100. ● Use estimation/rounding ●Problem solving strategies ●Decompose, estimate & measure liquid volume to show smaller amounts Ex. How many ml. in one liter? Understand that the digits of a four digit number represent amounts of thousands, hundreds, tens and ones. (ex 3,245 equals 3thousands, 2 hundreds, 4 tens, 5 ones, or it could equal 32 hundreds, 4 tens, 5 ones)	3.MD.A.2 Mass 3.NBT.A.1 Rounding to the Nearest Ten and Hundred 3.NBT.A.2 Alignment: 3.MD.B.3 Alignment: 3.OA.A.3 Problem Solving Module 2 Go Math- Ch.10– Measurement (Time, Length,LiquidVolume, Mass) including problem Solving Ch. 1 – Rounding (Addition and Subtraction with 1,000)	Kilogram Liquid volume Liter Milliliter Plot Point Reasonable Rename Round Second Standard algorithm Centimeter Estimate Horizontal Measure Mental math Meter Minute Multiply Number line Simplifying strategy e.g., “make ten” to add 7 and 6, (7 + 3) + 3 = 13) Unbundle Vertical

Multiplication & Division w/ Factors of 6,7,8,& 9: NY.3.OA1 through 3.OA9 and 3.NBT3 Approximate time 25 days	Read and write four digit numbers using base ten numerals, number names, and expanded form Rounding to the nearest ten and hundred ● 2 & 3 digit numbers to the nearest ten and hundred ●Vertical number line Two & three digit measurement addition and subtraction using the standard algorithm ● Single & double regrouping ● Estimate sums by rounding Solve word problems Understand, relate, interpret, model, apply multiplication & division ●Equal groups ●Arrays ●Commutative property ●Associative property ●Distributive property ● Decomposing numbers (function of parentheses) ●Solve for the unknown (6x2=n) (6xn=12) ●Patterns in Multiplication & division ● Finding unknown factors	3.OA1-9 Multiplication and Division 3.NBT.A.3 Problem Solving 3.OA 1 & 2 Problem Solving Multiply and divide within 100 | 3.OA.C.7 Solving two step word problems, including those with unknown quantities | 3.OA.D.8 Module 3 Go Math Ch. 3,4,5 – Multiplication Ch. 6,7 - Division	Even, odd Multiple Multiplier Product Array Commutative Property Distribute Divide, division Equal groups Equation Factors Multiply, multiplication Number bond Parentheses Quotient Row, column Unit Unknown Value

	●Related facts ●Repeated addition/subtraction ●Skip counting Solve 2 step word problems involving all four operations & interpret answers. ●Tape diagrams ●Bar models ●Close reading RDW Model		

Grade 3 Math Curriculum Map
Second Trimester

Topic /Standards **(Approximate Time Frame)**	**Key Ideas**	**Useful Resources**	**Vocabulary**
Geometric Measurement: understand concepts of area and relate area to multiplication and to addition NY.3MD 5,6, 7a-d Approximate time 20 days	Understand area as an attribute of plane figures and affirm that area is measured using square units and can be found by covering a plane figure with unit squares, without gaps or overlaps and by counting them. ● Tiling – cm & inch squares ● Arrays (5x4 vs 4x5) ● Relate side lengths with the number of tiles on the side ● Make rectangles by tiling Solve real world mathematical problems involving rectangular areas by multiplying the side lengths. ● Draw rows & columns to find area of a rectangle ● Interpret area models to form rectangular arrays ● Find area of a rectangle through multiplication of the side lengths (ex. lxw) Use area models to	Measure area by counting unit squares | 3.MD.C.6 Sample'Mathematics'Item:'Grade' 3 AREA 3.MD.C Rectangle Area Model Geometric measurement 3.MD.5-7 3.MD.C.7.d Rectangle Area Model 3.MD Finding the Area of Polygons Module 4 Go Math- Ch. 11	Area Area model Square unit Tile (to cover a region without gaps or overlaps) Unit square hole number Geometric shape Length

	represent the distributive property in mathematical reasoning. ● Distributive property 4 rows of 12=(4x10)+(4x2) ● Find the unknown side length of an area model Determine areas of rectilinear figures composed of rectangles by adding the areas of rectangles. ● Solve word problems involving area Find area by decomposing composite shapes into rectangles		
Develop understanding of fractions as numbers NY.3NF.1 through 3 NF.3a-d, 3G2 Approximate time 35 days *Grade 3 expectations in this domain are limited to fractions with denominators 2,3,4,6,8*	Determine 1/b is equal to one part of a whole that is partitioned into b equal parts ● Concrete models ● Fold paper strips ● Count unit fractions of the whole Represent 1/b on a number line by partitioning the number line between 0-1 into b equal parts, recognizing that b is the total number of parts. ● Number bonds ● Number lines ● Build and write factions greater than one whole Compare two fractions that have the same numerator or	http://www.commoncoresheets.com/ Interactive Fraction Tiles Unit Fractions Number Bonds Compare fractions by creating common denominators or numerators (2) | 4.NF.A.2	Unit fraction Non-unit fraction Equal parts Equivalent fraction Copies Arrays Halves, thirds, Fourths, Sixths, eighths Half of, one third of, one fourth of, etc. =, <, >

	same denominator using symbols, determining that the two fractions must refer to the same whole in order to compare. ● Number lines ● Fraction models ● Partition and shade shapes Represent a/b on a number line diagram by marking off *a* lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line. ● Number line; with end points 0-1 ● Place fractions on the number line ● Compare fractions and whole numbers on the number line within 1 Determine the distance between two points on a number line Identify and generate equivalent fractions using denominators of 2, 3, 4, 6, 8 Express whole numbers as fractions and identify fractions that are equivalent to whole numbers. Identify the location of equivalent fractions on a number line. ● Number lines ● Fraction models/strips	Equivalent Fractions Video Fractions on a Number line Module 5 Go Math – Ch. 8, 9	Equal shares Whole Fraction Partition Number Line

	● Fraction tiles ● Number bonds Compare two fractions with the same numerator or the same denominator, when the two fractions refer to the same whole. Record the results with the symbols >,=, or < and justify the conclusions by using a visual fraction model. ● Number lines ● Fraction models/strips ● Fraction tiles ● Number bonds		

Grade 3 Math Curriculum Map
Third Trimester

Topic /Standards **(Approximate Time Frame)**	**Key Ideas**	**Useful Resources**	**Vocabulary**
Represent and interpret data NY.3MD3 and 3MD4 Approximate time 10 days	Collecting and Displaying Data through pictographs, bar graphs, and line plots. ● Generate and organize data ● Create scaled bar graphs ● Create pictographs ● Solve one and two step problems involving graphs ● Use rulers marked with halves and fourths of an inch Create line plots where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters.	Represent and interpret data Module 6 Go Math Ch. 2 MD.4 Lessons/Videos MD.4 Lessons/Practice Using Rulers MD.4 Lessons/Interactive Activities Using Rulers MD.4 Measurement and Data Activities	Axis Frequent Measurement data Scaled graphs Survey Bar graph Data Information Fraction Line plot Picture/pictograph
Solve Problems using the four operations and explain patterns in arithmetic NY.3.OA.8, Approximately 40 days for entire 4th Quarter Reason with shapes and their attributes NY.3.G.1, 3G.2	Solve two-step word problems using the four operations with a letter for the unknown. These word problems should address all mathematical skills taught this year. ● Problem solving strategies ● RDW (Explain mathematical thinking) ● Tape/bar diagram ● Number line	3.OA.8 Solving two step word problems, including those with unknown quantities Video of Solving Multi-Step Word Problem - Khan Academy Sample Problems Problems of the Month	Attribute Closed/open shape Diagonal Perimeter Property Regular polygon Area Compose Decompose Hexagon Octagon Parallel

Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures NY.3.MD.8	Describe the attributes of a polygon in order to classify, compare, draw and identify it. (sides, vertices, angles) ● Polygon ● Quadrilateral ● Rectangles ● Square ● Rhombus ● Triangle ● Pentagon ● Hexagon ● Octagon Trapezoid Solve real world and mathematical problems involving perimeters of polygons with side lengths given, and with unknown side lengths. ● Decompose quadrilateral to understand perimeter as the boundary of a shape ● Use all four operations to solve problems involving perimeter and missing measurements Solve a variety of word problems involving perimeter.	Module 7 Go Math – Ch. 1, 3, 4, 7 will touch on Standard 3.OA.8 3.G.1 Reason With Shapes and their Attributes Sample Lessons 3.G.1 Sample Lessons and Videos 3.G.2 Partition shapes into parts with equal areas. Sample Lessons 3.G.2 Sample Lessons and Videos Module 7 Go Math – Ch. 12 MD.8 Lessons/Videos Measurement and Data Activities MD.8 Interactive Activities MD.8 Area and Perimeter Games Module 7 Go Math Ch. 10 and 11 touch on MD.8	Parallelogram Pentagon Polygon Quadrilaterals Rectangle Rhombus Right angle Square Trapezoid Triangle

Grade 4 Math Curriculum Map
First Trimester

Topic /Standards **(Approximate Time Frame)**	**Key Ideas**	**Useful Resources**	**Vocabulary**
Place Value, Rounding, +/- Algorithms Approximate 25 days **Standards:** NY.4.NBT.1-4 NY.4.OA.1- 3	● Understanding multi-digit whole numbers, recognize that a digit in one place represents ten times what it represents in the place to its right (700÷70 = 10) ● Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form, comparing <, >, = ● Use place value understanding to round multi-digit whole numbers to any place ● Fluently add and subtract multi-digit whole numbers ● Solve mult-istep word problems with whole numbers	Module 1 *Go Math* Ch. 1 BrainPOP Videos ● Base 10 Blocks ● Place Value Chart ● Number Discs ● Number Lines ● Tape Diagrams ● Dry Erase Pocket Charts	● Place Value ● Ones – Units ● Tens, Hundreds, Thousands, Ten Thousands, Hundred Thousands, Millions ● Period ● Digit ● Value ● Base 10 ● Expanding, Word and Standard Form ● Round ● Less/Greater Than ● Variable ● Number Line ● Regroup ● Tape Diagram
Multiplication/Division of up to a 4 Digit by 1 Digit using Place Value and Perimeter/Area Approximate 43 days	● Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit	Module 3 *Go Math* Ch. 2-5 BrainPOP Videos: Multiplication Division	● Array ● Factor ● Product ● Rounding ● Distributive,

Standards: NY.4.NBT.5-6 NY.4.0A.1-5 NY.4.MD.3-4 **Multiplication/Division (cont.)** **Standards:** NY.4.NBT.5-6 NY.4.0A.1-5 NY.4.MD.3-4	numbers ● Find whole number and quotients and remainders with up to four digit dividend ends and one digit divisors ● Interpret remainders ● Interpret a multiplication equation as a comparison ● Multiply or divide word problems involving multiplicative comparison ● Solve multi-step word problems with whole numbers ● Find all factor pairs for a whole number in the range 1-100, recognize a whole number is a multiple of each of its factors, prime, composite numbers ●Generate a number or shape pattern that follows a rule ● Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers ● Find whole number quotients and remainders with up to four digit dividend ends and one digit divisors ● Interpret a multiplication equation as a comparison ● Multiply or divide to solve word	Perimeter Area ● Area Models ● Place Value Chart ● Graph Paper ● Tape Diagrams ● Dry Erase Pocket ● Charts ● Base 10 Blocks Module 3 *Go Math* Ch. 2-5	●Commutative Property ●Associative Property ● Partial Product ● Tape/Bar Diagram ● Equation ● Model ● Area Model ● Area ● Compatible Numbers ● Estimate ● Divide ● Dividend ● Quotient ● Division ● Remainder ● Multiple ● Counting Numbers ● Partial Quotient ● Prime Number ● Composite Number ● Divisible ● Pattern ● Common Factor ● Common Multiple ● Composite Number

Order and Operations with Fractions Approximate 45 Days Standards: NY.4.NF.1-4 4.OA.5 4.MD.2, 4	problems involving multiplicative comparison ● Solve multi-step word problems with whole numbers ● Find all factor pairs for a whole number in the range 1-100, recognize a whole number is a multiple of each of its factors, prime, composite numbers ●Generate a number or shape pattern that follows a rule Explain fraction equivalency using visual fraction models ● Compare two fractions with different numerators and different denominators, by using benchmark fractions, or creating common denominators or numerators ● Understand addition and subtraction of fraction as joining and separating parts referring to the same whole (unit fractions) ● Decompose a fraction into a sum of fractions with the same denominator in more than one way (3/8 = 1/8+1/8+1/8) Add and subtract mixed numbers with like denominators ● Solve word problems involving addition and subtraction of fractions, referring to the same whole and having like denominators ● Understand a fraction a/b as a multiple of 1/b (5/4 = 5 x ¼) ● Understand a multiple of a/b as a	Module 5 Go Math Ch. 6-8 BrainPOP Videos: Fractions Jr. Fractions ● Area Model ● Fraction Strips ● Fraction Tiles ● Fraction Discs ● Line Plot ● Number Line ● Rulers ● Tape Diagram ● Dry Erase Pocket Charts ● Hershey Book (Bars)	Common Multiple ● Denominator ● Numerator ● Factor ● Fraction ● Multiple ● Benchmark ● Common Denominator ● Equivalent Fractions ● Simplest Form ● Tape Diagrams ● Number Line ● Compare/Order Fractions ● Associate & Commutative Property of Addition ● Mixed Numbers

	multiple of 1/b (3 x (2/5) as 6 X (1/5) ● Solve word problems involving multiplication by a whole number ● Generate a number or shape pattern that follows a given rule ● Use the four operations to solve word problems involving simple fractions ● Make a line plot in fractions of a unit		

Grade 4 Math Curriculum Map
Second Trimester

Topic /Standards **(Approximate Time Frame)**	**Key Ideas**	**Useful Resources**	**Vocabulary**
Fractions (cont.)	● Explain fraction equivalency using visual fraction models ● Compare two fractions with different numerators and different denominators, by using benchmark fractions, or creating common denominators or numerators ● Understand addition and subtraction of fraction as joining and separating parts referring to the same whole (unit fractions) ● Decompose a fraction into a sum of fractions with the same denominator in more than one way (3/8 = 1/8+1/8+1/8) ● Add and subtract mixed numbers with like denominators ● Solve word problems involving addition and subtraction of fractions, referring to the same whole and having like	Module 5 *Go Math* Ch. 6-8 BrainPOP Videos: Fractions Jr. Fractions ● Area Model ● Fraction Strips ● Fraction Tiles ● Fraction Discs ● Line Plot ● Number Line ● Rulers ● Tape Diagram ● Dry Erase Pocket Charts ● Hershey Book (Bars)	● Common Multiple ● Denominator ● Numerator ● Factor ● Fraction ● Multiple ● Benchmark ● Common Denominator ● Equivalent Fractions ● Simplest Form ● Tape Diagrams ● Number Line ● Compare/Order Fractions ● Associate & Communtative Property of Addition ● Mixed Numbers ● Fraction Greater Than 1 ● Unit Fraction Models

	denominators ● Understand a fraction a/b as a multiple of 1/b (5/4 = 5 x ¼) ● Understand a multiple of a/b as a multiple of 1/b (3 x (2/5) as 6 X (1/5) ● Solve word problems involving multiplication by a whole number ● Generate a number or shape pattern that follows a given rule ● Use the four operations to solve word problems involving simple fractions Make a line plot in fractions of a unit		
Fractions continued **NY.4.NF.1-4** **NY.4.OA.5** **NY.4.MD.2, 4**		**Module 5** ***Go Math* Ch. 6-8**	

Grade 4 Math Curriculum Map
Third Trimester

Topic /Standards **(Approximate Time Frame)**	**Key Ideas**	**Useful Resources**	**Vocabulary**
Geometry and Add/Subtract Angle Measurement Approximate 20 Days Standards: NY.4.MD.5-7 NY.4.G.1-3 NY.4.OA.5	● Recognize angles as geometric shapes that are formed whenever two rays share a common endpoint, and understand concepts of angle measurement (1/4 = 90°) ● Measure angle in whole number degrees using a protractor. Sketch angles of specified measure ● Recognize angles in whole number degrees (90° + n = 180°) ● Identify and draw points, lines, line segments, rays, angles, and perpendicular and parallel lines ● Classify 2D figures based on lines and angles ● Lines of symmetry Generate a shape pattern that follows a given rule	Module 4 *Go Math* Ch. 10-11 BrainPOP Videos: Geometry Jr. Geometry ● Protractor ● Ruler ● Pattern Blocks Graph Paper Module 2 *Go Math* Ch. 12 Measurement ● Beakers ●Number Line	● Polygon ● Triangle ● Trapezoid ● Triangle ● Rhombus ● Rectangle ● Square ● Quadrilateral ● Rectangle ● Parallelogram ● Line symmetry ● Line ● Line Segment ● Obtuse Angle/Triangle ● Acute Angle/Triangle ● Perpendicular ● Ray ● Right Angle ● Straight Angle ● Point ● Degrees ● Intersecting Lines ● Counterclockwise ●Protractor ● A.M. ● P.M. ● Centimeter ● Elapsed Time ● Foot ● Grams ● Hour ● Inch
Measurement Approximate 7 Days Standards NY.4.MD.1-2	● Know the relative sizes of customary and metric measurement units, conversion of measurements between larger and smaller		

	units ● Use of the four operations to solve word problems involving volume, mass, and distances Make a line plot		● Kilogram ● Meter ● Minute ● Yard ● Cup ● Gallon ● Line Plot ● Milliliter ● Liter ● Ounce ● Pint ● Quart ● Ton ● Pound ● Ruler • Line Plot
Decimals/Decimal Fractions Approximate 20 Days Standards: NY.4.NF.5-7 NY.4.MD.2	• Add tenths and hundredths by finding an equivalent fraction for the tenths as hundredths (Express 3/10 as 30/100 and adding 3/10 + 4/10 = 34/100) ● Use decimal notation for fractions with denominators 10 or 100 (0.62 = 62/100) ● Compare two decimals to hundredths using <,>,= Use the four operations to solve word problems including decimals	Module 6 Go Math Chapter 9 Brain pop Video: Decimals • Number Line ● Number Discs ● Area Model ● Place Value Chart ● Tape Diagram ● 1 Liter Container ● Ruler ● Meter Stick ● Digital Scale Graph Paper	• Decimal ● Decimal Point ● Decimal Fraction ● Equivalent Decimals ● Expanded Form ● Tenths ● Hundredths ●Thousandths
Exploring Multiplication Approximate 20 Days Standards: NY.4.OA.1-3	• Interpret a multiplication equation as a comparison ● Multiply or	Module 7 • Analog clock • Balance scale	

NY.4.OA.5 NY.4.MD.1-2	divide to solve word problems involving multiplicative comparison ● Solve multistep word problems with whole numbers ● Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers ● Know the relative sizes of customary and metric measurement units, conversion of measurements between larger and smaller units Use of the four operations to solve word problems involving volume, mass, and distances	• Beaker • Digital scale • Gallon, quart, pint, cup • Meter • Yard stick • 12 inch and CM rulers • Number bond • Number line • Protractor • Stop watch • Tape diagrams	