Grade K Math Curriculum Map
First Trimester

Topics/ Standards (Approximate time frame)	Skills	Useful Resources	Vocabulary
Geometry Identify and describe shapes. K.G.1 (approximately 5 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	* **Lesson 1 Describe Position** **Literature Suggestions:** * I'm On It! by Andrea Tsurumi * Where, Oh Where, is Baby Bear? by Ashley Wolff	Positional words * above * behind * below * beside * in front of * next to * under
Measurement and Data Describe and compare measurable attributes. K.MD.1 K.MD.2 (approximately 5 days)	● Describe measurable attributes of an object, such as length or height, using appropriate vocabulary ● Directly compare two objects with a common measurable attribute and describe the difference	*** Lesson 2 Describe and Compare Length and Height** **Literature Suggestions:** * How Tall? Wacky Ways to Compare Height By Mark Weakland * How Long? Wacky Ways To Compare Length by Jessica Gunderson * Short and Tall by Eric Carle	* attribute * height * length * long, longer * short, shorter * tall, taller
Measurement and Data Classify objects and count the number of objects in each category. K.MD.3 K.MD.4 (approximately 6 days)	● Classify objects into given categories; count the objects in each category and sort the categories by count ● Explore coins (pennies, nickels, dimes, and quarters) and begin identifying pennies and dimes.	*** Lesson 3 Sort and Count Objects** *** 1 day Coins lesson (iReady teacher toolbox)** **Literature Suggestions:** * The Crayons' Book of Numbers by Drew Daywalt * The Button Box by Margarette Reid	* attribute * category * classify * Sort * Penny * Dime * Nickel * Quarter

Counting & Cardinality Know number names and count sequence: K.CC.1 K.CC.2 K.CC.3 Count to tell the number of objects: K.CC.4a K.CC.4b K.CC.4c K.CC.5a K.CC.5b Compare numbers: K.CC.6 K.CC.7 (approximately 10 days)	● Rote counts to 20 ● Count, show and write numbers 0 to 5 ● Recognize that the order a set of objects is counted in does not impact the total ● Understand that when saying number words in sequential order, the last number said tells how many ● Match a number to a count or collection of objects ● Compare two numbers and quantities within 5, using the words more, less, or same ● Recognize that one more than a given number is the next number in the counting sequence	***Lesson 4 Count, Show and Write Numbers to 5** ***Lesson 5 Compare Numbers to 5** **Literature Suggestions:** * Bear Counts by Karma Wilson * How Do Dinosaurs Count to Ten? by Jane Yolen & Mark Teague	* count * number * number words: zero, one, two, three, four, five * compare * Greater than (more, larger) * Less than (fewer, smaller) * Same * One more * Before * after
Geometry Identify and describe shapes. K.G.1 K.G.2 K.G.3 Analyze, compare, sort, and compose shapes. K.G.4 Describe and compare measurable attributes. K.MD.1 K.MD.2 (approximately 5 days)	● Identify three-dimensional shapes as solid shapes and describe their attributes. ● Connect solid shapes to objects in the environment. ● Name solid shapes regardless of their orientation, overall size, or weight. ● Compare the weights of objects to determine which is heavier.	***Lesson 6 Three-Dimensional Shapes and Weight** **Literature Suggestions:** * Captain Invincible and the Space Shapes by Stuart Murphy * Just A Little Bit by Ann Tompert	* Cone * Cube * Cylinder * Sphere * Prism (rectangular) * Pyramid (square) * Corner, vertex * Edge * Face * Solid * Three-dimensional * Heavy, heavier * Light, lighter * Weight

Grade K Math Curriculum Map
Second Trimester

Topic /Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Geometry Identify and describe shapes. K.G.1 K.G.2 K.G.3 Analyze, compare, sort, and compose shapes. K.G.4 (approximately 5 days)	● Identify a two dimensional shape as a flat shape and describe its attributes. ● Correctly name two dimensional shapes regardless of their orientation or overall size. ● Use positional language to describe where shapes are seen. ● Build and draw two dimensional shapes.	***Lesson 8 Two-Dimensional Shapes** **Literature Suggestions:** * This is a Book of Shapes by Kenneth Kraegel * Walter's Wonderful Web by Tim Hopgood	* Circle * Hexagon * Rectangle * Square * Triangle * Flat * Side * Two-dimensional
Operations & Algebraic Thinking Understand simple patterns. K.OA.6 Understand addition as putting together and adding to. K.OA.1 K.OA.2a K.OA.5 (approximately 20 days)	● Duplicate, extend, and create simple patterns using concrete objects. ● Use fingers, pictures or manipulatives to add or subtract two numbers within 5 ● Understand that adding to a number makes more (except when adding 0) ● Understand that subtracting from a number results in less (except when subtracting 0) ● Identify the plus sign as a symbol for addition and the minus sign for subtraction ● Determine whether a story problem calls for addition or subtraction ● Tell and solve addition and subtraction story problems	***1 day Patterns lesson (iReady teacher toolbox)** **Lesson 7 Add Within 5** ***Lesson 9 Subtract Within 5** ***Lesson 10 Add and Subtract Within 5** **Literature Suggestions:** * Pete the Cat and His Four Groovy Buttons by Eric Litwin * Quack and Count by Keith Baker	* Add * Addition * Total * Subtract * Subtraction * Take away * Minus * Minus sign * Plus * Plus sign * Patterns * Duplicate * extend

Counting & Cardinality Know number names and count sequence: K.CC.1 K.CC.2 K.CC.3 Count to tell the number of objects: K.CC.4a K.CC.4b K.CC.4c K.CC.4d K.CC.5a K.CC.5b Compare numbers: K.CC.6 K.CC.7 (approximately 11 days)	● Rote counts to 50 ● Count up to 10 using one to one correspondence and number words in sequential order ● Use 10-frames as a tool to count and represent counts to 10 ● Recognize and write numbers 6 to 10 ● Understand that the last number said tells the number of objects ● Identify whether the number of objects (to 10) in one group is greater than, less than, or equal to the number in another group ● Compare two numbers from 1 to 10	***Lesson 11 Count, Show and Write Numbers 6-10** ***1 day Ordinal Number lesson- (iReady teacher toolbox)** ***Lesson 12 Compare Numbers to 10** **Literature Suggestions:** * Ten Black Dots by Donald Crews * Mouse Count by Ellen Stoll Walsh	* compare * greater * less * same * number * match * more * fewer
Geometry Analyze, compare, sort, and compose shapes. K.G.4 (approximately 5 days)	● Compose shapes from two or more two dimensional or three dimensional shapes ● Describe shapes composed of two or more two or three dimensional shapes	***Lesson 13 Compose Shapes** **Literature Suggestions:** * Tangled by Anne Miranda	* Compose * Review all vocabulary from previous shape lessons
Operations & Algebraic Thinking Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. K.OA.1 K.OA.2a K.OA.2b K.OA.3 K.OA.4 K.OA.5 (approximately 10 days)	● Recognize that a number can be broken into smaller parts ● Identify number partners for 10 using drawings or manipulatives ● Find the second number partner for 10 when given the first using drawings or manipulatives ● Understand the equal sign and represent number partners for 10 with equations ● Decompose 10 into number partners using objects or drawings	***Lesson 14 Compose and Decompose 10** ***Lesson 15 Number pairs for 10** **Literature Suggestions:** * Ten Monkey Jamboree by Dianne Ochiltree * Ten Flashing Fireflies by Philemon Sturges	* Compose * Decompose * Equal sign * equation

Counting and Cardinality Know number names and the count sequence. K.CC.1 K.CC.2 K.CC.3 Count to tell the number of objects. K.CC.4a K.CC.4b K.CC.4c K.CC.5a K.CC.5b (approximately 5 days)	● Count groups of up to 20 objects ● Read and write numbers from 11 to 20	***Lesson 16 Count, Read, and Write Numbers 11 to 20** **Literature Suggestions:** * Chicka Chicka, 1, 2, 3 by Bill Martin Jr * The Crayons' Book of Numbers by Drew Daywalt	* Eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen * Teen numbers * Twenty

Grade K Math Curriculum Map
Third Trimester

Topic /Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Counting and Cardinality Know number names and the count sequence. K.CC.1 K.CC.2 K.CC.3 Count to tell the number of objects. K.CC.4a K.CC.4b K.CC.4c K.CC.5a K.CC.5b (approximately 5 days)	● Count to 100 by 1s ● Count to 100 by 10s ● Count on from a given number that is less than 100	***Lesson 17 Count Within 100** **Literature Suggestions:** * From 1 to 100 by Terri Sloat * One Hundred Hungry Ants by Elinor Pinczes * Plenty of Petals by Michael Dahl	* Count * Count on
Operations & Algebraic Thinking Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. K.OA.1 K.OA.2a K.OA.2b K.OA.3 K.OA.5 (approximately 25 days)	● Decompose 6,7,8 & 9 into number partners using objects and drawings ● Represent number partners for 6,7,8 & 9 with equations ● Use tools, manipulatives and number partners to solve addition and subtraction problems within 10 ● Recognize equations that represent addition and subtraction problems ● Draw pictures and write equations to represent addition and subtraction stories ● Decide whether to add or subtract to solve a story problem ● Solve story problems for addition up to 10 and subtraction within 10	***Lesson 18 Compose and Decompose 6 and 7** ***Lesson 19 Compose and Decompose 8 and 9** ***Lesson 20 Add Within 10** ***Lesson 21 Subtract Within 10** ***Lesson 22 Add and Subtract to Solve Word Problems** **Literature Suggestions:** * Quack and Count by Keith Baker * Ten Black Dots by Donald Crews * 12 Ways to get to 11 by Eve Marriam * 10 for Dinner by Joe Allen Bogart * 10 Sly Piranhas by William Wise	* Compose * Decompose * Equal sign * Equation * Plus sign * Addition * Minus sign * Subtraction

Numbers and Operations in Base Ten Work with numbers 11-19 to gain foundations for place value. K.NBT.1 (approximately 10 days)	● Compose and decompose teen numbers into 10 ones and more ones ● Understand that teen numbers can always be composed of 10 ones and some more ones ● Make connections between the concrete, representational, and abstract representations of teen numbers ● Write equations to represent the composition and decomposition of teen numbers	***Lesson 23 Compose and Decompose Teen Numbers with Tools and Drawings** ***Lesson 25 Compose and Decompose Teen Numbers with Symbols** **Literature Suggestions:** Fair Bear Share by Stuart J. Murphy	* Review: count on, ten, teen numbers, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, equation
Geometry Analyze, compare, sort and compose shapes. K.G.4 K.G.5 K.G.6 (approximately 5 days)	● Identify shapes as flat or solid ● Make pictures with two dimensional shapes ● Build objects with three dimensional shapes	***Lesson 24 Build With Shapes** **Literature Suggestions:** * Not a Box by Antionette Portis * Perfect Square by Michael Hall	* Review of vocabulary from prior geometry lessons: compose, flat, solid, sort, three dimensional, two dimensional, circle, square, triangle, rectangle, hexagon, cone, cube, sphere, cylinder, pyramid, prism

Grade 1 Math Curriculum Map

First Trimester

Topic /Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
✅ **Trimester 1** Duration: ~25 days **Units Covered:** Unit 1: Relating Addition & Subtraction • Number partners, basic word problems, counting strategies Duration: ~20 days Begin Unit 2: Addition & Subtraction Within 20 • Cover teen numbers, making tens, doubles Duration: ~25 days **Key NYS Standards:** NY-1.OA.1, 1.OA.2, 1.OA.4, 1.OA.6a/b, 1.OA8 🎯 **NYS Standards for Grade 1: Key Domains**	🔑 **Key Ideas:** *Addition/subtraction as related operations (fact families) *Solve word problems using objects, drawings, equations *Develop strategies: counting on, making 10, doubles *Identify missing parts in addition/subtraction equations	🔗 **Helpful Resources:** *EngageNY Math Grade 1 Modules *Math Playground – Fact Family Games 🧩 **Unit 1: Relating Addition & Subtraction** • "Part-Part-Whole Mat" using counters to build addition/subtraction sentences • Flash-card Scoot: Quick match/add flip cards in rotation Unit 1- Center Cards i-Ready First Grade... 🧮 **Unit 2: Add/Subtract Within 20** • "Make-10 Ten-Frame Toss":	📘 **Vocabulary Focus:** *Add, subtract, plus, minus, sum, difference *Equals, number sentence, part, whole, fact family *Count on, make ten, doubles, missing addend

Operations & Algebraic Thinking (NY-1.OA): • NY-1.OA.1: Add/subtract within 20 via word problems • NY-1.OA.2: Add three whole numbers (sum ≤ 20) • NY-1.OA.4: Subtraction as unknown-addend • NY-1.OA.6a/b: Addition/subtraction fluency within 20 (strategies such as making ten, counting on) • NY-1.OA.8: Unknown in all positions in equations		Toss beanbags and record sums to 10+ • "Missing Addend Match": Task cards where one part of the addition sentence is hidden • Number-Line Race: Roll dice, hop on floor line, record sums/differences Unit 2- Center Cards i-Ready First Grade...	

Grade 1 Math Curriculum Map

Second Trimester

Topic /Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
✅ **Trimester 2** **Units Covered:** • Complete Unit 2 • Unit 3: Solving Word Problems & Making Comparisons • Solve multi-addend problems, compare values Duration: ~20 days • Unit 4: Develop place-value understanding Duration: ~25 days **Key NYS Standards:** • NY-1.OA.1, 1.OA.2, 1.OA.4, 1.OA.6, 1.OA.8, NY-1.NBT.1, 1.NBT.2a-c, 1.NBT.3 🎯 **NYS Standards for Grade 1: Key Domains** **Operations & Algebraic Thinking (NY-1.OA):**	🔑 **Key Ideas:** • Word problems involving three numbers (addition) • Subtraction as an unknown addend • Comparison problems: "How many more/fewer? • Use of bar models and part-part-whole diagrams • Understand 2-digit numbers as tens and ones • Count up to 120 starting at	🔗 **Helpful Resources:** • Greg Tang Math Word Problem Generator ✍️ **Unit 3: Word Problems & Comparisons** • "Compare-it Clip Cards": Greater/less than using mini clothespins • "Problem Solving Mat": Students draw and solve two-step word problems • "Spin & Write": Use spinners to create comparison sentences (>, <, =)	📘 **Vocabulary Focus:** • Compare, more than, less than, difference • Word problem, bar model, equation, unknown • Strategy, total, left, altogether • Tens, ones, digit, place value, numeral • Greater than, less than, equal to, compare • Expanded form, standard form, base-ten blocks

• NY-1.OA.1: Add/subtract within 20 via word problems • NY-1.OA.2: Add three whole numbers (sum ≤ 20) • NY-1.OA.4: Subtraction as unknown-addend • NY-1.OA.6a/b: Addition/subtraction fluency within 20 (strategies such as making ten, counting on) • NY-1.OA.8: Unknown in all positions in equation • NY-1.NBT.1: Count to 120, read/write numerals, represent objects • NY-1.NBT.2a-c: Understand tens & ones; teens; multiples of ten • NY-1.NBT.3: Compare two two-digit numbers (>, =, <) • NY-1.NBT.4: Add within 100 using place value strategies	any number • Compare two-digit numbers using <, >, = • Represent tens with rods and base-ten blocks	Unit 3- Center Cards i-Ready First Grad... **🔢 Unit 4: Tens & Ones, Place Value** • "Build-a-Number Base-10": Using blocks to represent 10s and 1s • "Place-Value Match": Card sort of numbers between 10–99 • "Digit Swap Game": Rearrange tens/ones to find higher numbers Unit 4- Center Cards i-Ready First Grad...	

• NY-1.NBT.5: Mentally find 10 more or 10 less			

Grade 1 Math Curriculum Map

Trimester 3

Topic /Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
✅ **Trimester 3** **Units Covered:** • Unit 5: Operations with Tens and Ones • Two-digit addition (no regrouping) Duration: ~20 days • Unit 6: Geometry & Measurement • Shapes, time, length, money Duration: ~20 days **Key NYS Standards:** • NY-1.NBT.4, 1.NBT.5 • NY-1.MD.3, 1.MD.4 • NY-1.G.1–3	🔑 **Key Ideas:** • Add/subtract two-digit numbers using place value • Mentally find 10 more/less, explain reasoning • Tell time to hour and half-hour • Recognize and draw 2D and 3D shapes • Measure lengths with non-standard and standard units • Collect, sort, and interpret data using graphs	🔗 **Helpful Resources:** • Time Games – ABCya • SplashLearn Geometry + Measurement Games ➕ **Unit 5: Operations with Tens & Ones** • "Expand & Compose": Using base-10 kits to add/subtract multi-digit • "Regrouping Race": Timed base-10 regrouping challenges • "Equation Puzzles": Piece together	📘 **Vocabulary Focus** • Tens, ones, regroup, decompose, mental math • Hour hand, minute hand, half hour, clock • Graph, tally, data, category, length, height • Shape, sides, corners, edges, faces

🎯 **NYS Standards for Grade 1: Key Domains** **Measurement & Data (NY-1.MD):** • NY-1.MD.4: Organize, represent, interpret data up to three categories **Geometry (NY-1.G):** • Drawing and composing shapes with defining attributes (embedded within standards, NY NGLS shift descriptions **Time & Money (NY-1.MD.3):** • Tell & write time in hours & half-hours; recognize coins (pennies/dimes)		addition/subtraction chains Unit 5- Center Cards i-Ready First Gr... 📏 **Unit 6: Geometry & Measurement** • "Shape Detective Bins": Sort 2D and 3D shapes with related vocabulary • "Measure & Compare": Use rulers to measure items and compare lengths • "Which One Doesn't Belong?" Math Talk: Promote critical thinking through class discussions Unit 6- Center Cards i-Ready First Gr...	

Grade 2 Math Curriculum Map
First Trimester

Weekly Pacing Guide | iReady Strategy Videos | Links to Lesson Video Library | Manipulatives by Lesson

Topic/Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Unit 1 (6 weeks)		**Unit 1 Centers**	
Lesson 1- Mental Math Strategies for Addition NY-2.OA.2a, NY-2.OA.2b	Use mental strategies (e.g., making ten, doubles) to fluently add within 20	Numberock: Mental Math Math Notes- Doubles Math Notes- Make 10 to add	doubles, make ten, addend, sum, equation, open number line, count on
Lesson 2- Mental Math Strategies for Subtraction NY-2.OA.2a, NY-2.OA.2b	Use mental strategies to subtract within 20 (e.g., count back, use known facts)	Subtraction-Posters LearnZillion - Free Lessons (search "mental subtraction 2nd grade")	subtraction, difference, count back, related facts, fact family
Lesson 3- Solve One-Step Word Problems NY-2.OA.1a	Use addition and subtraction to solve one-step word problems with unknowns in all positions	Math Playground: Word Problem Practice	word problem, equation, unknown, solution, operation
Lesson 4- Draw and Use Bar Graphs & Picture Graphs NY-2.MD.10	Collect, organize, and represent data using picture and bar graphs	BrainPOP Jr: Tally Charts & Bar Graphs Numberock-Bar Graphs	graph, data, bar graph, picture graph, tally, key, title, label
Lesson 5-Solve Two-Step Word Problems NY-2.OA.1b	Solve two-step word problems using addition and subtraction with equations and unknowns.	K5 Learning: Two-Step Word Problems	two-step, equation, solve, operation, sum, difference

Literature to Support Unit 1

Double the Ducks by Stuart J. Murphy – (Doubles facts, addition context)

If You Were a Plus or Minus Sign by Trisha Speed Shaskan – (Intro to operations)

Pigs Will Be Pigs: Fun with Math and Money by Amy Axelrod – (Real-life word problems)

Lemonade in Winter by Emily Jenkins – (Money, addition/subtraction in context)

Tally O'Malley by Stuart J. Murphy – (Graphing and data collection)

Unit 2 (6-10 weeks)		**Unit 2 Centers**	
Lesson 6- Add Two-Digit Numbers NY-2.NBT.5, NY-2.NBT.9	Add two-digit numbers using place value strategies and the properties of operations.	SplashLearn Practice: Addition	addend, regroup, tens, ones, place value, sum, estimate, sum
Lesson 7- Subtract Two-Digit Numbers NY-2.NBT.5, NY-2.NBT.9	Subtract two-digit numbers using place value strategies and the properties of operations.	ABCya Subtraction Practice	subtract, regroup, difference, place value, tens, ones
Lesson 8- Use Addition and Subtraction Strategies with Two-Digit Numbers NY-2.NBT.5, NY-2.NBT.9	Use addition and subtraction to solve problems with two-digit numbers in various contexts.		strategy, equation, regroup, place value, operation
Lesson 9- Solve Word Problems with Two-Digit Numbers NY-2.OA.1a, NY-2.OA.1b	Solve one- and two-step word problems involving two-digit numbers.	Math Playground: Two-Step Problems K5 Learning: Word Problems	unknown, sum, difference, regroup, word problem

Lesson 10- Solve Word Problems Involving Money NY-2.OA.1a, NY-2.OA.1b, NY-2.MD.8a, NY-2.MD.8b	Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies.	Toy Theater: Money Practice Math Notes- Coins	value, coin, cent, dollar, quarter, dime, nickel, penny
Lesson 11- Tell and Write Time NY-2.MD.7	Tell and write time to the nearest five minutes using analog and digital clocks.	The BEST interactive clock Practice Slides Practice Slides 2	minute, hour, clock, analog, digital, a.m., p.m., skip count

Literature to Support Unit 2

A Dollar, a Penny, How Much and How Many? by Brian P. Cleary – (Money)

The Coin Counting Book by Rozanne Lanczak Williams – (Visual coin recognition)

The Story of Clocks and Calendars by Betsy Maestro – (Time concepts)

It's About Time! by Stuart J. Murphy – (Telling time in real-life)

Alexander, Who Used to Be Rich Last Sunday by Judith Viorst – (Money decisions)

Grade 2 Math Curriculum Map
Second Trimester

Topic/Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Unit 3 (9 weeks)			
Lesson 12: Understand 3 digit numbers NY-2.NBT.1, NY-2.NBT.1a, NY-2.NBT.1b	Understand that three-digit numbers represent hundreds, tens, and ones.	Place Value Video (Base Ten Blocks) SplashLearn: Place Value Practice	hundreds, tens, ones, digit, number, expanded form, word form, place value, model
Lesson 13:Read and Write Numbers in Different Forms NY-2.NBT.3	Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.	Education.com: Place Value Practice Sheets	expanded form, standard form, word form, numeral
Lesson 14: Compare Three-Digit Numbers NY-2.NBT.4	Compare three-digit numbers using >, <, and = symbols, based on the values of hundreds, tens, and ones.	Comparing Numbers	compare, greater than, less than, equal to, digit, value, model
Lesson 15: Mental Addition and Subtraction NY-2.NBT.5, NY-2.NBT.9	Mentally add, 10 or 100 to a given number, skip count to ad and subtract	Mathrock	difference, regroup, skip count, sum
Lesson 16: Add 3 digit numbers NY-2.NBT.7a, NY-2.NBT.7b, NY-2.NBT.9	Break apart a 3 digit number as a place value strategy for adding	Slides	regroup, sum

Lesson 17: Subtract 3 digit numbers NY-2.NBT.7a, NY-2.NBT.7b, NY-2.NBT.9	Break apart 3 digit numbers as a strategy for subtracting 3 digit numbers. Determine when regrouping a 10 or a hundred is necessary to subtract. Explore subtraction as a process of taking away or adding up.		difference , regroup
Lesson 18: Use Addition and Subtraction Strategies with 3 digit numbers NY-2.NBT.7a, NY-2.NBT.7b, NY-2.NBT.9	Use addition and subtraction to solve problems with three-digit numbers in various contexts.	SplashLearn: Add & Subtract Within 1000	difference regroup, sum
Lesson 19: Add Several 2 digit numbers NY-2.NBT.6, NY-2.NBT.9	Develop strategies for adding more than two numbers (break apart, commutative and associative properties of addition)	Math & Learning	Commutative property, associative property, hundreds, tens, ones,

Literature to Support Unit 3

How Much Is a Million? by David M. Schwartz – (Place value, big numbers)

A Place for Zero by Angeline Sparagna LoPresti – (Place value concept)

Earth Day—Hooray! by Stuart J. Murphy – (Place value + environmental theme)

Place Value by David A. Adler – (Clear visuals and explanations)

Millions to Measure by David M. Schwartz – (Extension text)

Grade 2 Math Curriculum Map
Third Trimester

Topic/Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Unit 4 (8 weeks)			
Lesson 20: Measure in inches and centimeters NY-2.MD.1	Measure the length of an object by selecting and using appropriate tools such as rulers marked in inches or centimeters.	Brainpop Jr- Search measurement	inch, centimeter, length, ruler, measure
Lesson 21: Measure in feet and meters NY-2.MD.1	Use yardsticks and meter sticks to measure and compare lengths in larger standard units.	PBS Learning Media: Measurement Tools	compare, difference, length, longer, shorter, units
Lesson 22: Understand measurement with different units NY-2.MD.2	Measure the same object with different units and describe how the measurements relate to unit size.	Numberock- Length Math Playground: Measurement Games	length, add, subtract, total, difference, unit
Lesson 23: Estimate and measure lengths — NY-2.MD.3	Estimate lengths using inches, feet, centimeters, and meters before measuring accurately.		estimate, predict, measure, tool, unit
Lesson 24: Compare lengths NY-2.MD.4	Compare two objects by measuring and describing the difference in length.	Compare Lengths (Khan) Compare & Measure Printables (K5 Learning)	longer, shorter, difference, length, compare

Lesson 25: Add and subtract lengths NY-2.MD.5	Use addition and subtraction to solve word problems involving lengths.	Math Playground: Measurement Story Problems	total, difference, add, subtract, length, unit
Lesson 26: Add and subtract on a number line NY-2.MD.6	Represent whole numbers on a number line and use the line to solve addition and subtraction problems.	Khan Academy: Number Line Strategies	number line, interval, jump, forward, backward
Lesson 27: Read and make line plots NY-2.MD.9	Generate measurement data and represent it on a line plot using whole-number lengths.	Brain pop JR- Line Graphs	data, line plot, tally, graph, measurement
Literature to Support Unit 4 ***How Big is a Foot?*** by Rolf Myller – (Standard vs. non-standard measurement) ***Measuring Penny*** by Loreen Leedy – (Using different units for measurement) ***Inch by Inch*** by Leo Lionni – (Conceptual approach to length) ***Just a Little Bit*** by Ann Tompert – (Comparison and problem-solving) ***Super Sand Castle Saturday*** by Stuart J. Murphy – (Comparing lengths)			
Unit 5 (4 Weeks) ***Optional* Lesson 28 Recognize and Draw Shapes** NY-2.G.1	Recognize and draw shapes having specified attributes such as number of angles or equal faces.	Khan Academy: Recognizing Shapes PBS Kids: Shape Games	shape, sides, angles, vertices, triangle, quadrilateral, pentagon, hexagon

Lesson 29: Understand Partitioning Shapes into Halves, Thirds, and Fourths NY-2.G.3	Recognize that equal shares of a whole must be the same size but not necessarily the same shape		halves, thirds, fourths, equal parts, partition, fraction
Lesson 30: Partition Rectangles NY-2.G.2	Partition rectangles into rows and columns of same-size squares.	Fraction Worksheets from K5 Learning	equal parts, shape, area, whole, divide, fraction
Lesson 31: Add using arrays NY-2.OA.4	Use arrays to model repeated addition;	Numberock Arrays as Repeated Addition	array, row, column, repeated addition
Lesson 32: Even and odd numbers NY-2.OA.3a, NY-2.OA.3b	Determine if a group of objects is even or odd using pairing and counting by 2s.	Numberock Even or Odd Song	even, odd, pair

Literature to Support Unit 5

The Greedy Triangle by Marilyn Burns – (Properties of shapes and transformation)

Shapes, Shapes, Shapes by Tana Hoban – (Everyday shape identification)

Give Me Half! by Stuart J. Murphy – (Equal parts and basic fractions)

Fraction Fun by David A. Adler – (Intro to fractions, clearly explained)

Whole-y Cow! Fractions Are Fun by Taryn Souders – (Fractions in real life)

Third Grade Curriculum Map
Revised July 2025

Preface

Topic /Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Please note and become familiar with the Key Ideas for third grade that require the most focus, the pre/post standards: the guide to NYS Assessment, the Next Generation Standards for Grade 3 the pacing guide for **I-Ready.**	In Grade 3, instructional time focuses on four areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing polygons based on the number of sides and vertices.	• Pre/post test Standards link -FYI • Educator Guide to NYS Assessment- FYI • Next Generation Standards Grade 3 • **Pacing Guide for I-Ready** • Alternate pacing guide with prerequisites	
Before beginning the curriculum, **give an I-Ready diagnostic.**	• Recommend to schedule three 45 minute periods for this diagnostic. • Gives you placement for students in all 4 key domains. • Sets up My Path for students	Go to Diagnostic Results after administration, click on grade level planning, go to the unit drop down menu and choose Unit 1.	

Trimester 1 - Third Grade

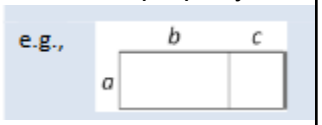
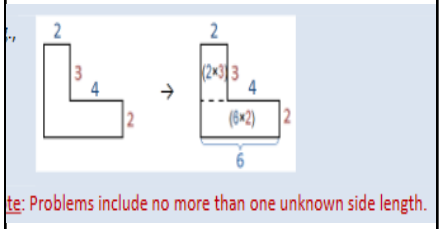
Topic /Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Topic 1: Using Place Value Use place value understanding and properties of operations to perform multi-digit arithmetic. **Standards:** **NY-3.NBT 1,2,4a,,4b** Sept.- Oct. Note: Depending on diagnostic results my have to revisit some 2nd grade lessons Understanding Content Across Grades Understanding Content and Progression Video	• Use place value to round numbers to the nearest 10 and 100 • Fluently add and subtract three digit numbers using strategies and algorithms based on the properties of operations and /or the relationship between addition and subtraction. • Understand that the digits of a four-digit number represent amounts of thousands, hundreds,tens and ones. • Read and write four digit numbers using base ten numerals, number names and expanded form.	**I-Ready Curriculum** • Unit 1 Resources • Fluency Flight daily to support fluency in all 4 operations. • Games that align are Zoom, Hungry Fish,Cupcake and Zoom • Number line and Base Ten Block tools online • Base Ten Manipulatives • Family Letters for each lesson • Share third grade I-Ready folder • Interactive Tutorials • Interactive Practice and Reports • Comprehension Checks • Unit Review and Reports • Cumulative Review • My Path • Virtual Manipulatives	Sum difference regroup algorithm round estimate number line halfway strategy benchmark number (10) place value digit expanded form partial sums skip count mental math model

		IXL- Go to Skill Plans - Select I-Ready and look for the Math Skills for this topic **Additional Resources:** Reflex Math Khan Academy Zearn Brainpop Jr. Shared third grade I-Ready folder in drive	
Topic /Standards (Approximate Time Frame)	**Key Ideas**	**Useful Resources**	**Vocabulary**
Topic 2: Multiplication and Division Represent and solve problems involving Multiplication And Division (this topic may end up being completed in Trimester 2). Note: During Pilot year this topic was finished on 1/16/24.	• Interpret products of whole numbers • Interpret whole-number quotients • Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.	**I Ready:** • Unit 2 • Fluency Flight daily to support fluency in all 4 operations. • Family Letters for each lesson. • Diagnostic Results with useful resources for each unit. • counters • Number line, area model and Multiplication model	array multiply arrange divide equation expression equal groups repeated addition factor unknown factor product pattern double partition

Standards: **NY-3.OA1; OA2;OA3; OA4;OA5;OA6; OA 7a and 7b, and 3.NBT.3** Understanding Topic and Progression video Understanding Content Across Grades	• Determine the unknown whole number in a multiplication or division equation relating three whole numbers. • Apply properties of operations as strategies to multiply and divide***note: students do not need to use formal terms for these properties - as per Next Generation Standards page 47 • Multiply one-digit whole numbers by multiples of 10 (10-90)using strategies based on place value and properties of operations. • Understand division as an unknown factor problem • Fluently solve single digit multiplication and division equations using strategies • Know from memory all products of two one-digit numbers.	tools • Games: Match, Pizza, Cupcake • Interactive Tutorials • Interactive Practice and Reports • Comprehension Checks • Unit Review and Reports • Cumulative Review • My Path IXL - go to skill plans, click I-Ready - look skills aligned to unit **Additional Resources:** Reflex Math Brainpop Jr. Khan Academy Zearn Shared third grade I-Ready folder	quotient divisor dividend reasonable compose decompose break apart multiple

Trimester 2 -Third Grade

Topic /Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Finish up Unit 2 if not yet completed			
Mid January - do second diagnostic	Alot 3 days - 45-50 minute slots	Review Diagnostic Results and use to help plan units	
Topic 3: Area and Data 1.Understand Concepts of Area and relate it to multiplication and addition 2. Represent and Interpret Data 3. Solve 1-2 Step Word Problems Using the Four Operations - approx. 28 days **Standards:** **NY-3.MD. 5a and b; 6; and 7a,b, c, d** **NY-3.MD3** **NY-3OA8a,b** Understanding Topic and Progression Video	• Recognize area as an attribute of plane figures and understand concepts of area measurement. • Recognizing a square with side length 1 unit is called a unit square. • Recognize a plane figure can be covered without gaps or overlaps by *n* unit squares if said to have an area of *n* square units. • Measure areas by counting unit squares. • Relate area to the operations of multiplication and division. • Find the area of a	**I-Ready** • Unit 3 • Fluency Flight daily to support fluency in all 4 operations. • Family Letters for each lesson. • Diagnostic Results with useful resources for each unit. • Multiplication Models and Area Tools • Square tile manipulatives • Centimeter and inch graph paper and dot paper • Games: Cupcake, Pizza • Interactive Tutorials • Interactive Practice and Reports • Comprehension Checks	gaps overlaps area square unit inch centimeter tiling combined rectangle measure width length square rectangle bar graph picture graph represent data scale key interpret operation

[Understanding Content Across Grade levels]	rectangle with whole number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. • Use tiling to show in a concrete case that the area of a rectangle with whole-number side length a and side length *b* + *c* is the sum of *a* x *b* and *a* x *c*. Use area models to represent the distributive property.   • Recognize area as an additive. Find areas of figures composed of non-overlapping rectangles and apply this technique to solve	• Unit Review and Reports • Cumulative Review • My Path IXL - go to skill plans, click I-Ready - look skills aligned to unit **Additional Resources:** Reflex Math Brainpop Jr. [Khan Academy] [Zearn] Shared third grade I-Ready folder	

	real word problems • Draw a scaled picture graph and a scaled bar graph to represent and interpret data • Solve one and two step word problems using all four operations • Represent these problems using equations or expressions with a letter standing for the unknown. • Assess the reasonableness of the answer.		
Topic 4: Fractions Develop an Understanding of Fractions as Numbers This unit may go into the third trimester 28-30 days. **Standards:** **NY-3.NF1;2a,b;3a,b,c,d** **NOTE: fractions are limited to those with denominators 2,3,4,6 and 8 as stated in the Next Generation Standards**	• Understand a unit fraction, 1/b is the quantity formed by 1 part when a whole is partitioned. • Understand and represent fractions on a number line • Understand equivalent fractions • Recognize and generate equivalent fractions. • Express whole numbers and fractions • Recognize that fractions are equivalent to whole numbers.	**I -Ready:** • Unit 4 • Family Letters • Review Diagnostic Results for your class for this unit. • Number line tool, fractions model tool • Fluency flight for addition, subtraction, multiplication and division practice • Fraction manipulatives • Games: Bounce, Cloud Machine, Cupcake, Match • Interactive Tutorials • Interactive Practice and Reports	fraction whole halve thirds fourths sixths eights equivalent compare denominator numerator unit fraction partition line plot model symbol

Represent and Interpret Data NY-3.MD4 **Topic Progression Video** **Understanding Content Across Grade Levels**	• Compare fractions with the same numerator or the same denominator by reasoning about their size. • Compare fractions using symbols. • Measure lengths using rulers marked with halves and fourths of an inch. • Show the data by making a line plot where the horizontal scale is marked off in appropriate units.	• Comprehension Checks • Unit Review and Reports • Cumulative Review • My Path • Grid paper IXL - go to skill plans, click I-Ready - look skills aligned to unit **Additional Resources:** Reflex Math Brainpop Jr. Khan Academy Zearn Shared third grade I-Ready folder	scale plot distance

Trimester 3 - Third Grade

Topic /Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Finish Topic 4			
Topic 5: Measurement Word Problems involving measurement and estimation of intervals of time, liquid volumes, and mass of objects. Approx. 16 days Needs to be completed before the NYS test. **Standards:** **NY-3MD 1;2a;2b; NBT.2** **Unit Flow and Progression Video** **Understanding Content Across Grades**	• Tell and write time to the nearest minute and measure time intervals in minutes. • Solve one-step word problems involving addition and subtraction of time intervals in minutes that cross into a new hour representing the problem on a number line or other visual model. • Measure and estimate liquid volumes and masses of objects using grams (g), kilograms (kg), and liters (l).	**I Ready:** • Unit 5 • Family Letters • Review Diagnostic Results for your class for this unit. • Number line tool • Fluency flight for addition, subtraction, multiplication and division practice • Student clocks • Interactive clock1 • Interactive clock 2 • Number lines • Pan balance and weights • Various containers to liquid measurement • Interactive Pan balance 1 • Interactive Pan balance 2 • Interactive guess the measurement -g or kg • Interactive Tutorials • Interactive Practice and Reports • Comprehension Checks • Unit Review and Reports • Cumulative Review • My Path • Grid paper	hour hand minute hand analog clock am pm measure elapsed time interval mass liquid volume grams (g) kilograms (kg) liters (l)

		IXL - go to skill plans, click I-Ready - look skills aligned to unit **Additional Resources:** Reflex Math Brainpop Jr. Khan Academy Zearn Shared third grade I-Ready folder	

Topic /Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Topic 6: post state test standards: Geometry and Perimeter 1.Reason with shapes and their attributes. 2.Geometric measurement: recognize perimeter as an attribute of plane figures	• Recognize and classify polygons based on attributes. • Partition shapes into parts with equal areas and express the area of each part as a unit fraction of the whole. • Solve real word mathematical problems	**I Ready:** • Unit 6 • Family Letters • Review Diagnostic Results for your class for this unit. • Perimeter and area tool • Fractions model tool • Fluency flight for addition, subtraction, multiplication	polygon attributes characteristics classify 2D plane figure regular and irregular polygons quadrilateral pentagon hexagon

and distinguish between linear and area measurements. **Standards:** **NY-3.G 1 and 2** **NY-3.MD 8a and b** **Approx. time- 15-18 days** **Unit Flow and Progression video** **Understanding Content Across grades**	involving perimeters of polygons. • Find the perimeter given the side lengths or finding one unknown side length given the perimeter and other side lengths. • Identify rectangles with the same perimeter and different areas or with the same area and different perimeters.	and division practice • Interactive Practice and Reports • Comprehension Checks • Unit Review and Reports • Cumulative Review • My Path • Pattern blocks • Geo boards • Square tiles • Dot paper • Grid paper • Fraction tiles and models IXL - go to skill plans, click I-Ready - look skills aligned to unit **Additional Resources:** Reflex Math Brainpop Jr. Khan Academy Zearn Shared third grade I-Ready folder	parallel lines parallelogram opposite rhombus trapezoid vertex angle right angle intersecting lines perpendicular lines

Grade 4 Curriculum Map
First Trimester

Topic/Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Unit 1: Whole Numbers: Place Value, Comparison, Addition, and Subtraction (Lessons 1-5) **Approximate time:** ~20 days **Standards:** NY-4.NBT.1 NY-4.NBT.2a NY-4.NBT.2b NY-4.NBT.3 NY-4.NBT.4 *Please check the teacher's guide for educator notes on lessons 1-5	**Lesson 1: Understand Place Value (NY-4.NBT.1; NY-4.NBT.2a)** • Use a place-value chart to understand the value of each digit in a number • Identify the value of a digit based on its position in a number • Demonstrate how moving from one place to the next greatest place changes the value of a digit by a multiple of ten • Show that any number can be represented in different ways • Use standard form, word form, and expanded form to read and write multi-digit whole numbers **Lesson 2: Compare Whole Numbers (NY-4.NBT.1; NY-4.NBT.2a-b)** • Use symbols (>, <, =) to show the relationship between two multi-digit numbers • Compare multi-digit numbers in order to solve word problems **Lesson 3: Round Whole Numbers (NY-4.NBT.3)** • Round multiple-digit numbers to any place • Explain how to round a multi-digit whole number to a specific place **Lesson 4: Add Whole Numbers (NY-4.NBT.4)** • Use place-value strategies to add two or more multi-digit whole numbers • Develop fluency with the standard algorithm for addition when adding multi-digit numbers up to 999,999 • Use an estimating strategy with rounded numbers to check for reasonableness of a sum	**Unit 1 Useful Resources:** • base-ten blocks • number lines • place value chart • place value disks • tape diagrams • Brain Pop videos (accessible through Classlink) • Engage NY: Module 1 • Polypad: Virtual Manipulatives	**Lesson 1:** **Math Vocabulary:** digit, expanded form, period, place value, standard form, word form **Academic Vocabulary:** represent **Lesson 2:** **Math Vocabulary:** compare, equal sign, greater than, less than **Academic Vocabulary:** position **Lesson 3:** **Math Vocabulary:** estimate, round **Academic Vocabulary:** position **Lesson 4:** **Math Vocabulary:** addend, algorithm, estimate, reasonable, regroup, round, sum **Academic Vocabulary:** digit

Unit 2: Operations: Multiplication, Division, and Algebraic Thinking (Lessons 6-10) **Approximate time:** ~20 days **Standards:** NY-4.OA.1 NY-4.OA.2 NY-4.OA.3 NY-4.OA.3a NY-4.OA.3b NY-4.OA.4 NY.-4.OA.5 *Please check the teacher's guide for educator notes on lesson 10	**Lesson 5: Subtract Whole Numbers** **(NY-4.NBT.4)** • Use place-value strategies to subtract multi-digit whole numbers • Develop fluency with the standard algorithm for subtraction when adding multi-digit numbers up to 999,999 • Use an estimating strategy with rounded numbers to check for reasonableness of a difference **Lesson 6: Understand Multiplication as a Comparison** **(NY-4.OA.1)** • Use a multiplication equation to represent the relationship between two numbers as a multiplicative comparison • Identify a multiplication equation as showing two ways to describe a product as a comparison between two factors • Write an equation to represent a multiplicative comparison word problem • Write a word problem using a multiplicative comparison to describe a given multiplication equation **Lesson 7: Multiplication and Division in Word Problems** **(NY-4.OA.2)** • Use drawings and symbols to represent a word problem involving multiplicative comparison • Use equations to solve for the unknown in multiplicative comparison problems • Solve word problems involving multiplicative comparisons by using multiplication or division • Distinguish between multiplicative comparison and additive comparison	**Unit 2 Useful Resources:** • area models • base-ten blocks • counters and cups • grid paper • hundreds charts • index cards • multiplication models • number lines • paper plates (lesson 10) • pattern blocks • pattern block templates • rulers • sticky notes • tape diagrams • unit tiles • Brain Pop videos (accessible through Classlink) • Engage NY: Module 3 • Polypad: Virtual Manipulatives	**Lesson 5:** **Math Vocabulary:** algorithm, difference, estimate (noun), estimate (verb), reasonable, regroup, sum **Academic Vocabulary:** clarify, compare **Lesson 6:** **Math Vocabulary:** equation, factor, multiplication, multiplicative comparison, multiply **Academic Vocabulary:** confirm **Lesson 7:** **Math Vocabulary:** divide, division, equation, factor, multiplication, multiplicative comparison, multiply, symbol, unknown **Academic Vocabulary:** clarify

	Lesson 8: Multiples and Factors **(NY-4.OA.4)** • Use basic multiplication facts to list all the factors of a number • Use basic multiplication facts to determine whether a number is a multiple of another number • Apply understanding of multiples and factors to solving problems • Identify a number as prime or composite		**Lesson 8:** **Math Vocabulary:** array, composite number, factor, factor pair, factors of a number, multiple, multiplication, multiply, prime number **Academic Vocabulary:** repeat
	Lesson 9: Number and Shape Patterns **(NY-4.OA.5)** • Use rules to generate or extend a number pattern • Use manipulatives or drawings to show a shape pattern • Describe, analyze, and extend patterns in numbers and shapes		**Lesson 9:** **Math Vocabulary:** pattern, rule **Academic Vocabulary:** alternate, repeat
	Lesson 10: Model and Solve Multiple-Step Problems **(NY-4.OA.3, NY-4.OA.3a, NY-4.OA.3b)** • Use equations with a letter standing for the unknown to represent multiple-step word problems and solve these equations • Interpret the remainder in a division word problem • Use estimation strategies to check that an answer is reasonable		**Lesson 10:** **Math Vocabulary:** divide, equation, estimate (verb), expression, multiple, reasonable, remainder, unknown **Academic Vocabulary:** opinion
Begin Unit 3: Multi-Digit Operations and Measurement: Multiplication, Division, Perimeter and Area (Lessons 11-16) **Approximate time:** ~23 days **Standards:** NY-4.NBT.5 NY-4.NBT.6 NY-4.MD.1 NY-4.MD.3	**Lesson 11: Multiply by One-Digit Numbers** **(NY-4.NBT.5)** • Multiply whole numbers of up to four digits by one-digit whole numbers • Use arrays, area models, and partial products to multiply • Use estimation to determine whether answers are reasonable		**Lesson 11:** **Math Vocabulary:** estimate (noun), estimate (verb), factor, multiple, multiplication, multiply, partial products, product **Academic Vocabulary:** partial, reasonable

Grade 4 Curriculum Map
Second Trimester

Topic/Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Unit 3: Multi-Digit Operations and Measurement: Multiplication, Division, Perimeter and Area (Lessons 11-16) **Approximate time:** ~23 days *Please note that Lesson 13 is a post-test standard. iReady recommends spending one day on this lesson at this time. **Standards:** NY-4.NBT.5 NY-4.NBT.6 NY-4.MD.1 NY-4.MD.3	**Lesson 12: Multiply by Two-Digit Numbers** **(NY-4.NBT.5)** • Multiply a two-digit number by a two-digit number • Use area models and partial products to multiply • Use estimation to determine whether an answer is reasonable **Lesson 13 is a post-test standard** **Lesson 14: Divide Three-Digit Numbers** **(NY-4.NBT.6)** • Divide up to three-digit dividends by one-digit divisors, with remainders • Use rectangular arrays and area models to divide • Use the relationship between multiplication and division to estimate and find a quotient • Use place-value understanding and properties of operations to divide **Lesson 15: Divide Three-Digit Numbers** **(NY-4.NBT.6)** • Divide up to four-digit dividends by one-digit divisors, with remainders • Use area models and partial quotients to divide • Use the relationship between multiplication and division to estimate and find a quotient • Use place-value understanding and properties of operations to divide	**Unit 3 Useful Resources:** • area models • base-ten blocks • bowls (lesson 11, 14) • counters • grid paper • index cards • multiplication models • number lines • paper plates (lesson 12, 14) • perimeter and area tool: digital resource (lesson 16) • rulers (lesson 16) • sticky notes • tape diagrams • Brain Pop videos (accessible through Classlink) • Engage NY: Module 3 • Polypad: Virtual Manipulatives	**Lesson 12:** **Math Vocabulary:** estimate (verb), factor, multiple, multiplication, multiply, partial products, product **Academic Vocabulary:** reasonableness, row **Lesson 14:** **Math Vocabulary:** divide, dividend, division, divisor, estimate (noun), estimate (verb), multiple, quotient, remainder **Academic Vocabulary:** process, reasonable, remain **Lesson 15:** **Math Vocabulary:** divide, dividend, division, divisor, partial quotients, quotient, remainder **Academic Vocabulary:** partial

Unit 4: Fractions, Decimals, and Measurement: Addition, Subtraction, and Multiplication (Lessons 17-24) **Approximate time:** ~32 days *Please note that Lessons 25-29 are post-test standards. **Standards:** NY-4.NF.1 NY-4.NF.2 NY-4.NF.3a-d NY-4.NF.4a-c NY-4.MD.4	**Lesson 16: Find Perimeter and Area** **(NY-4.MD.3)** • Use the formula for perimeter of a rectangle to solve problems • Use the formula for area of a rectangle to solve problems **Lesson 17: Understand Equivalent Fractions** **(NY-4.NF.1)** • Understand the value of a fraction • Understand how a fraction model represents a fraction • Use models to demonstrate that two fractions are equivalent • Represent equivalent fractions using models • Multiply and divide to find equivalent fractions **Lesson 18: Compare Fractions** **(NY-4.NF.2)** • Use symbols (<, >, =) to compare fractions with different numerators and different denominators • Recognize that fractions with different denominators and the same numerators represent different values • Use common denominators and benchmark fractions to compare fractions with different denominators • Recognize that to compare two fractions both must refer to the same whole **Lesson 19: Understand Fraction Addition and Subtraction** **(NY-4.NF.3, NY-4.NF.3a)** • Understand fraction addition as joining parts • Understand fraction subtraction as separating parts • Extend understanding of addition and subtraction of whole numbers to addition and subtraction of fractions • Use fraction models to add and subtract fractions with like denominators	**Unit 4 Useful Resources:** • counters • fraction bars • fraction models • fraction tiles • grid paper • hundredths grid • index cards • number lines • Play-Doh • tenths grids • Brain Pop videos (accessible through Classlink) • Engage NY: Module 5 • Polypad: Virtual Manipulatives	**Lesson 16:** **Math Vocabulary:** area, formula, perimeter **Academic Vocabulary:** label **Lesson 17:** **Math Vocabulary:** denominator, equivalent fractions, fraction, numerator, unit fraction **Academic Vocabulary:** model (noun), model (verb), shade **Lesson 18:** **Math Vocabulary:** benchmark fraction, common denominator, compare, denominator, greater than symbol (>), less than symbol (<), numerator **Academic Vocabulary:** connection **Lesson 19:** **Math Vocabulary:** denominator, fraction, numerator, unit fraction **Academic Vocabulary:** compare

	Lesson 20: Add and Subtract Fractions **(NY-4.NF.3, NY-4.NF.3b, NY-4.NF.3d)** • Add fractions with like denominators • Subtract fractions with like denominators • Decompose fractions as a sum of fractions with the same denominators in more than one way • Use fraction models, number lines, and equations to represent word problems		**Lesson 20:** **Math Vocabulary:** decompose, denominator, fraction, numerator, unit fraction **Academic Vocabulary:** altogether, rest
	Lesson 21: Add and Subtract Mixed Numbers **(NY-4.NF.3, NY-4.NF.3c)** • Decompose fractions greater than 1 into a fraction equivalent to a whole number and a fraction less than 1 • Write a mixed number as a fraction and write a fraction greater than 1 as a mixed number • Add and subtract mixed numbers with like denominators • Write and solve an equation with mixed numbers with like denominators in order to solve a word problem		**Lesson 21:** **Math Vocabulary:** decompose, mixed number **Academic Vocabulary:** farther
	Lesson 22: Add and Subtract Fractions in Line Plots **(NY-4.MD.4)** • Make a line plot that displays data in fractional units • Solve addition word problems by using a line plot • Solve subtraction word problems by using a line plot		**Lesson 22:** **Math Vocabulary:** data, fraction, line plot, mixed number **Academic Vocabulary:** discuss, occur
	Lesson 23: Understand Fraction Multiplication **(NY-4.NF.4, NY-4.NF.4a, NY-4.NF.4b)** • Multiply a unit fraction (numerator of 1) by a whole number • Multiply a fraction with a numerator greater than 1 by a whole number		**Lesson 23:** **Math Vocabulary:** denominator, fraction, multiplication, multiply, numerator, product **Academic Vocabulary:** Construct

	Lesson 24: Multiply Fractions by Whole Numbers **(NY-4.NF.4, NY-4.NF.4c)** • Solve word problems that involve multiplying a fraction by a whole number		**Lesson 24:** **Math Vocabulary:** denominator, fraction, multiply, numerator, product **Academic Vocabulary:** batch

Grade 4 Curriculum Map
Third Trimester

Topic/Standards (Approximate Time Frame)	Key Ideas	Useful Resources	Vocabulary
Unit 5: Geometry and Measurement: Figures, Classification, and Symmetry (Lessons 30-34) **Approximate time:** ~25 days **Standards:** NY-4.G.1 NY-4.G.2a NY-4.G.3 NY-4.MD.5 NY-4.MD.6 NY-4.MD.7	**Lesson 30: Points, Lines, Rays, and Angles** **(NY-4.NF.G1, NY-4.MD.5)** • Identify and draw points, lines, line segments, rays, and angles and identify them in two-dimensional figures • Recognize an angle as a geometric shape • Identify acute, right, and obtuse angles in two-dimensional figures • Identify and draw parallel and perpendicular lines, distinguish between the two, and identify them in two-dimensional figures **Lesson 31: Angles** **(NY-4.MD.5, NY-4.MD.6)** • Recognize the relationship between the measure of an angle and the part of a circle that the angle turns through • Use a protractor to measure an angle • Use benchmark angle measures to estimate the measure of an angle • Draw an angle of a specific degree **Lesson 32: Add and Subtract with Angles** **(NY-4.MD.7)** • Recognize that an angle can be decomposed into several smaller angles • Recognize that several smaller angles can be combined to form a larger angle • Add and subtract to find angle measures • Use addition and subtraction to solve word problems about angle measures	**Unit 5 Useful Resources:** • clocks (lesson 31) • geoboards • grid paper • index cards • modeling clay • pattern blocks • pipe cleaners • protractors • rulers • sticky notes • straws • symmetry mirrors • toothpicks • tracing paper • Brain Pop videos (accessible through Classlink) • Engage NY: Module 4 • Polypad: Virtual Manipulatives	**Lesson 30:** **Math Vocabulary:** acute angle, angle, line, line segment, obtuse angle, parallel lines, perpendicular lines, point, ray, right angle, vertex **Academic Vocabulary:** assumption, characteristic **Lesson 31:** **Math Vocabulary:** acute angle, angle, degree, obtuse angle, protractor, ray, right angle, vertex **Academic Vocabulary:** exactly, line up, section **Lesson 32:** **Math Vocabulary:** angle, compose, decompose, degree, protractor **Academic Vocabulary:** relationship

Finish Unit 3: Multi-Digit Operations and Measurement: Multiplication, Division, Perimeter and Area (Lesson 13) **Approximate time:** ~4 days **Standards:** NY-4.MD.1	**Lesson 33: Classify Two-Dimensional Figures** **(NY-4.G.2a)** • Sort two-dimensional figures based on parallel or perpendicular sides and on acute, obtuse, or right angles • Recognize that triangles can be classified based on the lengths of their sides (isosceles, equilateral, scalene) • Name a triangle based on the kind of angles it has (acute, obtuse, right) **Lesson 34: Symmetry** **(NY-4.G.3)** • Recognize lines of symmetry in two-dimensional figures • Draw lines of symmetry in two-dimensional figures **Lesson 13: Use Multiplication to Convert Measurements** **(NY-4.MD.1)** • Identify relative size measurements within one system • Identify the units of measurement within a measurement system • Convert measurements from a larger unit to a smaller unit within the same system • Use a conversion table showing equivalent measurements within the same system • Multiply whole numbers of up to four digits by one-digit whole numbers • Multiply a two-digit number by a two-digit number	**Unit 3 Useful Resources:** • clocks • clock faces • grid paper • index cards • math reference sheet • multiplication models • sticky notes • Brain Pop videos (accessible through Classlink) • Engage NY: Module 2 • Engage NY: Module 7	**Lesson 33:** **Math Vocabulary:** acute triangle, equilateral triangle, hexagon, isosceles triangle, obtuse triangle, parallel lines, parallelogram, perpendicular lines, polygon, right triangle, scalene triangle, trapezoid (exclusive), trapezoid (inclusive) **Academic Vocabulary:** at least, in common **Lesson 34:** **Math Vocabulary:** line of symmetry **Academic Vocabulary:** at least, exactly **Lesson 13:** **Math Vocabulary:** convert, customary system, metric system **Academic Vocabulary:** label, process

Finish Unit 4: Fractions, Decimals, and Measurement: Addition, Subtraction, and Multiplication (Lessons 25-29) **Approximate time:** ~20 days **Standards:** NY-4.NF.5 NY-4.NF.6 NY-4.NF.7 NY-4.MD.2a-b	**Lesson 25: Fractions as Tenths and Hundredths** **(NY-4.NF.5)** • Write a fraction that has a denominator of 10 as an equivalent fraction with denominator of 10 • Add two fractions with denominators of 10 and 100 **Lesson 26: Relate Decimals and Fractions** **(NY-4.NF.6)** • Write fractions with denominators of 10 or 100 as decimals • Write decimals as fractions with denominators of 10 or 100 **Lesson 27: Compare Decimals** **(NY-4.NF.7)** • Compare two decimals to hundredths using the >, <, = symbols • Solve word problems involving comparisons of decimals in tenths and in hundredths **Lesson 28: Compare Decimals** **(NY-4.MD.2, NY-4.MD.2a, NY-4.MD.2b)** • Solve word problems involving time and money • Convert larger units of measure to smaller units in order to solve word problems about time • Convert amounts of money in bills and coins to solve word problems about money • Write and solve equations in order to solve word problems involving time and money	**Unit 4 Useful Resources:** • base-ten blocks • clocks • counters • hundredths decimal place value charts • hundredths grids • index cards • math reference sheet • number lines • play money • sticky notes • tenths grids • Brain Pop videos (accessible through Classlink) • Engage NY: Module 6 • Polypad: Virtual Manipulatives	**Lesson 25:** **Math Vocabulary:** denominator, equivalent fractions, fraction, hundredths, numerator, tenths **Academic Vocabulary:** confidence **Lesson 26:** **Math Vocabulary:** decimal, decimal point, denominator, equivalent fractions, fractions, numerator **Academic Vocabulary:** shade **Lesson 27:** **Math Vocabulary:** compare, decimal, equal, equal sign (=), greater than symbol (>), less than symbol (<) **Academic Vocabulary:** location **Lesson 28:** **Math Vocabulary:** convert, equation, expression **Academic Vocabulary:** counterexample

	Lesson 29: Problems About Length, Liquid Volume, Mass, and Weight **(NY-4.MD.2, NY-4.MD.2a, NY-4.MD.2b)** • Solve word problems involving length, liquid volume, mass, and weight • Convert larger units of measure to smaller units in order to solve measurement word problems • Write and solve equations in order to solve measurement word problems		**Lesson 29:** **Math Vocabulary:** convert, equation, expression, length, liquid volume, mass, weight **Academic Vocabulary:** given