M04.A-T: Numbers and Operations in Base Ten

Big Idea: M04.A-T.1 Generalize place-value understanding for multi-digit whole numbers.

M04.A-T.1.1 Apply place-value and numeration concepts to compare, find equivalencies, and round.

Essential Question(s)

- How is mathematics used to quantify, compare, represent, and model numbers?
- How can mathematics support effective communication?
- How are relationships represented mathematically?
- What does it mean to estimate or analyze numerical quantities?
- When is it appropriate to estimate versus calculate?
- What makes a tool and/or strategy appropriate for a given task?
- How can patterns be used to describe relationships in mathematical situations?

Concepts	Competencies	Resources	Assessments
M04.A-T.1.1.1: Demonstrate an understanding that in a multi-digit whole number (through 1,000,000), a digit in one place represents ten times what it represents in the place to its right. **M04.A-T.1.1.2:** Read and write whole numbers in expanded, standard, and word form through 1,000,000. **M04.A-T.1.1.3:** Compare two multi-digit numbers through 1,000,000 based on meanings of the digits in each place, using >, =, < symbols. **M04.A-T.1.1.4:** Round multi-digit	**CC.2.1.4.B.1:** Apply place-value concepts to show an understanding of multi-digit whole numbers.	• Math in Focus: Teacher's Edition – Chapter 1, Chapter 2, • Math in Focus: Student Book • Math in Focus: Student Workbook Edition • Assessments Manual • Reteach Manual • Extra Practice Manual • Enrichment Manual • School to Home Connections Manual • Manipulative Kit • Achieving Facts Fluency Manual • Transition Guide • Think Central Technology	• District Adopted Published Chapter 1 Test Prep • District Adopted Published Chapter 2 Test Prep • District Created Curriculum Based Assessment • Exact Path Benchmark • PSSA

whole numbers (through 1,000,000) to any place.		Platform • Exam View • SAS Website • ST Math • Exact Path Diagnostics	
Vocabulary: compare, decompose, demonstrate, digit, equation, equivalent, estimate, estimation, expanded form, expression, greater than, less than, number line, numeration, pattern, period, place value, round, sequence, standard form, whole numbers, word form			

M04.A-T: Numbers and Operations in Base Ten			
Big Idea: M04.A-T.2 Use place-value understanding and properties of operations to perform multi-digit arithmetic.			
M04.A-T.2.1 Use operations to solve problems.		**Essential Question(s)** • How is mathematics used to quantify, compare, represent, and model numbers? • How can mathematics support effective communication? • How are relationships represented mathematically? • What does it mean to estimate or analyze numerical quantities? • When is it appropriate to estimate versus calculate? • What makes a tool and/or strategy appropriate for a given task? • How can patterns be used to describe relationships in mathematical situations?	
Concepts	**Competencies**	**Resources**	**Assessments**
M04.A-T.2.1.1: Add and subtract multi-digit whole numbers (limit sums and subtrahends up to and including 1,000,000). **M04.A-T.2.1.2:** Multiply a whole number of up to four digits by a one-digit whole number and multiply 2 two-digit numbers.	**CC.2.1.4.B.2:** Use place value understanding and properties of operations to perform multi-digit arithmetic.	• Math in Focus: Teacher's Edition – Chapter 1, Chapter 2, Chapter 3 • Math in Focus: Student Book • Math in Focus: Student Workbook Edition • Assessments Manual • Reteach Manual	• District Adopted Published Chapter 1 Test Prep • District Adopted Published Chapter 2 Test Prep • District Adopted Published Chapter 3 Test Prep

M04.A-T.2.1.3: Divide up to four-digit dividends by one-digit divisors with answers written as whole-number quotients and remainders. **M04.A-T.2.1.4:** Estimate the answer to addition, subtraction, and multiplication problems using whole numbers through six digits (for multiplication, no more than 2 digits x 1 digit, excluding powers of 10).		• Extra Practice Manual • Enrichment Manual • School to Home Connections Manual • Manipulative Kit • Achieving Facts Fluency Manual • Transition Guide • Think Central Technology Platform • Exam View • SAS Website • ST Math • Exact Path Diagnostics	• District Created Curriculum Based Assessment • Exact Path Benchmark • PSSA
Vocabulary: add, addend, addition, array, difference, digit, divide, dividend, division, divisor, equal, equation, estimate, estimation, evaluate, evaluation, fact family, factor, factor pairs, function table, inverse operation, multiple, multiplication, multiply, number, number line, number model, number story, order of operations, operation, parenthesis, pattern, place value, prime number, product, properties, quotient, related facts, remainder, round, subtract, subtraction, sum, variable, whole numbers, word problem			

M04.A-F: Numbers and Operations – Fractions	
Big Idea: M04.A-F.1 Extend understanding of fraction equivalence and ordering.	
M04.A-F.1.1 Find equivalences and compare fractions.	**Essential Question(s)** • How is mathematics used to quantify, compare, represent, and model numbers? • How can mathematics support effective communication? • How are relationships represented mathematically? • What does it mean to estimate or analyze numerical quantities? • When is it appropriate to estimate versus calculate? • What makes a tool and/or strategy appropriate for a given task? • How can patterns be used to describe relationships in

		mathematical situations?	
Concepts	**Competencies**	**Resources**	**Assessments**
M04.A-F.1.1.1: Recognize and generate equivalent fractions. **M04.A-F.1.1.2:** Compare two fractions with different numerations and different denominators (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100) using the symbols >, =, or < and justify the conclusions.	**CC.2.1.4.C.1:** Extend the understanding of fractions to show equivalence and ordering.	• Math in Focus: Teacher's Edition – Chapter 6 • Math in Focus: Student Book • Math in Focus: Student Workbook Edition • Assessments Manual • Reteach Manual • Extra Practice Manual • Enrichment Manual • School to Home Connections Manual • Manipulative Kit • Achieving Facts Fluency Manual • Transition Guide • Think Central Technology Platform • Exam View • SAS Website • ST Math • Exact Path Diagnostics	• District Adopted Published Grade 3 Chapter 14 Test Prep • District Adopted Published Chapter 6 Test Prep • District Created Curriculum Based Assessment • Exact Path Benchmark • PSSA
Vocabulary: benchmark timeline, compare, common denominator, comparison bars, denominators, difference, digit, divide, equal to, equivalent, equivalent fractions, fractions, generate, greater than, improper fractions, less than, like denominators, lowest terms, mixed numbers, numerators, patterns, recognize, simplest form, simplify, unit fractions, unlike denominators, whole number			

M04.A-F: Numbers and Operations – Fractions	
Big Idea: M04.A-F.2 Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	
M04.A-F.2.1 Solve problems involving fractions and whole numbers (straight computation or word problems).	**Essential Question(s)** • How is mathematics used to quantify, compare, represent, and

		model numbers? • How can mathematics support effective communication? • How are relationships represented mathematically? • What does it mean to estimate or analyze numerical quantities? • When is it appropriate to estimate versus calculate? • What makes a tool and/or strategy appropriate for a given task? • How can patterns be used to describe relationships in mathematical situations?	
Concepts	**Competencies**	**Resources**	**Assessments**
M04.A-F.2.1.1: Add and subtract fractions with a common denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100; answers do not need to be simplified; and no improper fractions as the final answer). **M04.A-F.2.1.2:** Decompose a fraction or a mixed number into a sum of fractions with the same denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100), recording the decomposition by an equation. Justify decompositions (e.g., by using a visual fraction model). **M04.A-F.2.1.3:** Add and subtract mixed numbers with a common denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100; no regrouping with	**CC.2.1.4.C.2:** Build fractions from unit fractions by apply and extending previous understandings of operations on whole numbers.	• Math in Focus: Teacher's Edition – Chapter 6 • Math in Focus: Student Book • Math in Focus: Student Workbook Edition • Assessments Manual • Reteach Manual • Extra Practice Manual • Enrichment Manual • School to Home Connections Manual • Manipulative Kit • Achieving Facts Fluency Manual • Transition Guide • Think Central Technology Platform • Exam View • SAS Website • ST Math • Exact Path Diagnostics	• District Adopted Published Grade 3 Chapter 14 Test Prep • District Adopted Published Chapter 6 Test Prep • District Created Curriculum Based Assessment • Exact Path Benchmark • PSSA

subtraction; fractions do not need to be simplified; and no improper fractions as the final answers). **M04.A-F.2.1.4:** Solve word problems involving addition and subtraction of fractions referring to the same whole or set and having like denominators (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100). **M04.A-F.2.1.5:** Multiply a whole number by a unit fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100 and final answers do not need to be simplified or written as a mixed number). **M04.A-F.2.1.6:** Multiply a whole number by a non-unit fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100 and final answers do not need to be simplified or written as a mixed number). **M04.A-F.2.1.7:** Solve word problems involving multiplication of a whole number by a fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100).			
Vocabulary: add, addend, addition, benchmark timeline, compare, common denominator, comparison bars, denominators, difference, digit,			

divide, dividend, divisor, equal to, equation, equivalent, equivalent fractions, estimate, evaluate, evaluation, fact, fractions, generate, greater than, improper fractions, less than, like denominators, lowest terms, mixed numbers, multiple, multiplication, multiply, number, number model, number story, numerators, place value, patterns, product, quotient, recognize, remainder, round, simplest form, simplify, subtract, subtraction, sum, unit fractions, unlike denominators, whole number, word problem

M04.A-F: Numbers and Operations – Fractions			
Big Idea: M04.A-F.3 Understand decimal notation for fractions and compare decimal fractions.			
M04.A-F.3.1 Use operations to solve problems involving decimals, including converting between fractions and decimals (may include word problems).		**Essential Question(s)** • How is mathematics used to quantify, compare, represent, and model numbers? • How can mathematics support effective communication? • How are relationships represented mathematically? • What does it mean to estimate or analyze numerical quantities? • When is it appropriate to estimate versus calculate? • What makes a tool and/or strategy appropriate for a given task? • How can patterns be used to describe relationships in mathematical situations?	
Concepts	**Competencies**	**Resources**	**Assessments**
M04.A-F.3.1.1: Add two fractions with respective denominators 10 and 100. **M04.A-F.3.1.2:** Use decimal notation for fractions with denominators 10 to 100. **M04.A-F.3.1.3:** Compare two decimals to the hundredths using symbols >, =, or <, and justify the conclusions.	**CC.2.1.4.C.3:** Connect decimal notation to fractions, and compare decimal fractions (base 10 denominator, e.g., 19/100).	• Math in Focus: Teacher's Edition – Chapter 6, Chapter 7, Chapter 8 • Math in Focus: Student Book • Math in Focus: Student Workbook Edition • Assessments Manual • Reteach Manual • Extra Practice Manual • Enrichment Manual • School to Home	• District Adopted Published Grade 3 Chapter 14 Test Prep • District Adopted Published Chapter 6 Test Prep • District Adopted Published Chapter 7 Test Prep • District Adopted Published Chapter 8 Test Prep

		Connections Manual • Manipulative Kit • Achieving Facts Fluency Manual • Transition Guide • Think Central Technology Platform • Exam View • SAS Website • ST Math • Exact Path Diagnostics	• District Created Curriculum Based Assessment • Exact Path Benchmark • PSSA
Vocabulary: add, addend, addition, benchmark timeline, compare, common denominator, comparison bars, conclusion, connect, decimal, denominators, difference, digit, equal to, equation, equivalent, equivalent fractions, estimate, evaluate, evaluation, fractions, generate, greater than, improper fractions, less than, like denominators, lowest terms, mixed numbers, number, number model, number story, numerators, place value, patterns, product, recognize, round, simplest form, simplify, sum, unit fractions, unlike denominators, whole number, word problem			

M04.B-O Operations and Algebraic Thinking			
Big Idea: M04.B-O.1 Use the four operations with whole numbers to solve problems.			
M04.B-O.1.1 Use numbers and symbols to model the concepts of expressions and equations.		**Essential Question(s):** • How is mathematics used to quantify, compare, represent, and model numbers? • How can mathematics support effective communication? • How are relationships represented mathematically? • How can patterns be used to describe the relationships in mathematical situations? • How can recognizing repetition or regularity assist in solving problems more efficiently? • How can data be organized and represented to provide insight into the relationship between quantities? • How can probability and data analysis be used to make predictions?	
Concepts	**Competencies**	**Resources**	**Assessments**

M04.B-O.1.1.1: Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations. **M04.B-O.1.1.2:** Multiply or divide to solve word problems involving multiplicative comparison, distinguishing multiplicative comparison from additive comparison. **M04.B-O.1.1.3:** Solve multi-step word problems posed with whole numbers using the four operations. Answers will be either whole numbers or have remainders that must be interpreted yielding a final answer that is a whole number. Represent these problems using equations with a symbol or letter standing for the unknown quantity. **M04.B-O.1.1.4:** Identify the missing symbol (+, -, ×, ÷, =, <, and >) that makes a number sentence true (single digit divisor only).	**CC.2.2.4.A.1:** Represent and solve problems involving the four operations.	• Math in Focus: Teacher's Edition - Chapter 1, Chapter 2, Chapter 3 • Math in Focus: Student Book • Math in Focus: Student Workbook Edition • Assessments Manual • Reteach Manual • Extra Practice Manual • Enrichment Manual • School to Home Connections Manual • Manipulative Kit • Achieving Facts Fluency Manual • Transition Guide • Think Central Technology Platform • Exam View • SAS Website • ST Math • Exact Path Diagnostics	• District Adopted Published Chapter 1 Test Prep • District Adopted Published Chapter 2 Test Prep • District Adopted Published Chapter 3 Test Prep • District Created Curriculum Based Assessment • Exact Path Benchmark • PSSA
Vocabulary: add, addend, addition, array, difference, digit, divide, dividend, division, divisor, equal, equation, estimate, estimation, evaluate, evaluation, fact family, factor, factor pairs, function table, inverse operation, multi-step, multiple, multiplication, multiplicative comparisons, multiply, number, number line, number model, number story, order of operations, operation, parenthesis, pattern, place value, prime number,			

product, properties, quotient, related facts, remainder, round, subtract, subtraction, sum, symbol, variable, whole numbers, word problem

M04.B-O Operations and Algebraic Thinking			
Big Idea: M04.B-O.2 Gain familiarity with factors and multiples.			
M04.B-O.2.1 Develop and apply number theory concepts to represent numbers in various ways.		**Essential Question(s):** • How is mathematics used to quantify, compare, represent, and model numbers? • How can mathematics support effective communication? • How are relationships represented mathematically? • How can patterns be used to describe the relationships in mathematical situations? • How can recognizing repetition or regularity assist in solving problems more efficiently? • How can data be organized and represented to provide insight into the relationship between quantities? • How can probability and data analysis be used to make predictions?	
Concepts	**Competencies**	**Resources**	**Assessments**
M04.B-O.2.1.1: Find all the factor pairs for a whole number in the interval 1 through 100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the interval 1 through 100 is a multiple of a given one-digit number. Determine whether a given whole number in the interval 1 through 100 is prime or composites.	**CC.2.2.4.A.2:** Develop and/or apply number theory concepts to find factors and multiples.	• Math in Focus: Teacher's Edition – Chapter 2, Chapter 3 • Math in Focus: Student Book • Math in Focus: Student Workbook Edition • Assessments Manual • Reteach Manual • Extra Practice Manual • Enrichment Manual • School to Home Connections Manual • Manipulative Kit	• District Adopted Published Chapter 2 Test Prep • District Adopted Published Chapter 3 Test Prep • District Created Curriculum Based Assessment • Exact Path Benchmark • PSSA

		• Achieving Facts Fluency Manual • Transition Guide • Think Central Technology Platform • Exam View • SAS Website • ST Math • Exact Path Diagnostics	
Vocabulary: composite, digit, factor, factor pairs, multiple, prime, whole number			

M04.B-O Operations and Algebraic Thinking			
Big Idea: M04.B-O.3 Generate and analyze patterns.			
M04.B-O.2.1 Recognize, describe, extend, create, and replicate a variety of patterns.		**Essential Question(s):** • How is mathematics used to quantify, compare, represent, and model numbers? • How can mathematics support effective communication? • How are relationships represented mathematically? • How can patterns be used to describe the relationships in mathematical situations? • How can recognizing repetition or regularity assist in solving problems more efficiently? • How can data be organized and represented to provide insight into the relationship between quantities? • How can probability and data analysis be used to make predictions?	
Concepts	**Competencies**	**Resources**	**Assessments**
M04.B-O.3.1.1: Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule	**CC.2.2.4.A.4:** Generate and analyze patterns using one rule.	• Math in Focus: Teacher's Edition – Chapter 1, Chapter 7, Chapter 14, Chapter 15 • Math in Focus: Student	• District Adopted Published Chapter 1 Test Prep • District Adopted Published Chapter 7 Test

itself. **M04.B-O.3.1.2:** Determine the missing elements in a function table (limit to +, -, or × and to whole numbers or money). **M04.B-O.3.1.3:** Determine the rule for a function given a table (limit to +, -, or × and to whole numbers).		Book • Math in Focus: Student Workbook Edition • Assessments Manual • Reteach Manual • Extra Practice Manual • Enrichment Manual • School to Home Connections Manual • Manipulative Kit • Achieving Facts Fluency Manual • Transition Guide • Think Central Technology Platform • Exam View • SAS Website • ST Math • Exact Path Diagnostics	Prep • District Adopted Published Chapter 14 Test Prep • District Adopted Published Chapter 15 Test Prep • District Created Curriculum Based Assessment • Exact Path Benchmark • PSSA
Vocabulary: add, addition, difference, factor, function table, missing element, money, multiplication, multiply, number, pattern, product, rule, shape, subtraction, sum, whole number			

M04.C-G Geometry	
Big Idea: M04.C-G.1 Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	
M04.C-G.1.1 List properties, classify, draw, and identify geometric figures in two dimensions.	**Essential Question(s)** How can patterns be used to describe relationships in mathematical situations? How can recognizing repetition or regularity assist in solving problems more efficiently? How are spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve problems? How can the application of the attributes of geometric shapes support

		mathematical reasoning and problem solving? How can geometric properties and theorems be used to describe, model, and analyze situations?	
Concepts	**Competencies**	**Resources**	**Assessments**
M04.C-G.1.1.1: Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. **M04.C-G.1.1.2:** Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specific size. Recognize right triangles as a category, and identify right triangle. **M04.C-G.1.1.3:** Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that a figure can be folded along the line into mirroring parts. Identify line-symmetric figures and draw lines of symmetry (up to two lines of symmetry).	**CC.2.3.4.A.1:** Draw lines and angles and identify these in two – dimensional figures. **CC.2.3.4.A.2:** Classify two-dimensional figures by properties of their lines and angles. **CC.2.3.4.A.3:** Recognize symmetric shapes and draw lines of symmetry.	• Math in Focus: Teacher's Edition – Chapter 9, Chapter 10, Chapter 11, Chapter 14, Chapter 15 • Math in Focus: Student Book • Math in Focus: Student Workbook Edition • Assessments Manual • Reteach Manual • Extra Practice Manual • Enrichment Manual • School to Home Connections Manual • Manipulative Kit • Achieving Facts Fluency Manual • Transition Guide • Think Central Technology Platform • Exam View • SAS Website • ST Math • Exact Path Diagnostics	• District Adopted Published Chapter 9 Test Prep • District Adopted Published Chapter 10 Test Prep • District Adopted Published Chapter 11 Test Prep • District Adopted Published Chapter 14 Test Prep • District Adopted Published Chapter 15 Test Prep • District Created Curriculum Based Assessment • Exact Path Benchmark • PSSA
Vocabulary: absence, across, acute angle, angle, category, classify, draw, figure, folded, identify, line, line segment, mirroring parts, obtuse angle, parallel lines, perpendicular lines, points, rays, presence, properties, recognize, right angle, right triangles, size, symmetry, two-dimensional			

M04.D-M Measurement and Data			
Big Idea: M04.D-M.1 Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.			
M04.D-M.1.1 Solve problems involving length, weight (mass), liquid volume, time, area, and perimeter.		**Essential Question(s)** • What does it mean to estimate or analyze numerical quantities? • When is it is appropriate to estimate versus calculate? • What makes a tool and/or strategy appropriate for a given task? • Why does "what" we measure influence "how" we measure? • In what ways are the mathematical attributes of objects or processes measured, calculated and/or interpreted? • How precise to measurements and calculations need to be? • How can data be organized and represented to provide insight into the relationship between quantities? • How does the type of data influence the choice of display? • How can probability and data analysis be used to make predictions?	
Concepts	**Competencies**	**Resources**	**Assessments**
M04.D-M.1.1.1: Know relative sizes of measurement units within one system of units including standards units (in., ft., yd., mi; oz., lb.; and c., pt., qt., and gal), and time (sec., min., hr., day, wk., mo., and yr.). Within a single system of measurement, express measurement in a larger unit in terms of a smaller unit. **A table of equivalencies will be provided.** **M04.D-M.1.1.2:** Use the four operations to solve word problems involving distances, intervals of time (such as elapsed time), liquid volumes, masses of objects; money, including problems involving simple fractions or decimals; and	**CC.2.4.4.A.1:** Solve problems involving measurement and conversions from a larger unit to a smaller unit.	• Math in Focus: Teacher's Edition – Chapter 12, Chapter 13 • Math in Focus: Student Book • Math in Focus: Student Workbook Edition • Assessments Manual • Reteach Manual • Extra Practice Manual • Enrichment Manual • School to Home Connections Manual • Manipulative Kit • Achieving Facts Fluency Manual • Transition Guide • Think Central Technology Platform	• District Adopted Published Chapter 12 Test Prep • District Adopted Published Chapter 13 Test Prep • District Created Curriculum Based Assessment • Exact Path Benchmark • PSSA

problems that require expressing measurements given in a larger unit in terms of a smaller unit. **M04.D-M.1.1.3:** Apply the area and perimeter formulas for rectangles in real-world and mathematical problems (may include finding a missing side length). Whole numbers only. **The formulas will be provided.** **M04.D-M.1.1.4:** Identify time (analog or digital) as the amount of minutes before or after the hour.		• Exam View • SAS Website • ST Math • Exact Path Diagnostics	
Vocabulary: add, addition, analog, area, capacity, cup, day, decimal, difference, digital, divide, division, distance, elapse time, foot, formula, fractions, gallon, height, hour, inch, length, liquid volume, mass, mathematical problems, measurement, mile, minute, money, month, multiplication, multiply, operation, ounce, perimeter, pint, pound, quart, quotient, rectangle, remainder, second, side, simple fraction, sizes, small terms, standard units, subtract, subtraction, sum, system, time, units, volume, week, width, word problem, yard, year			

M04.D-M Measurement and Data	
Big Idea: M04.D-M.2 Represent and interpret data.	
M04.D-M.2.1 Organize, display, and answer questions based on data.	**Essential Question(s)** • What does it mean to estimate or analyze numerical quantities? • When is it is appropriate to estimate versus calculate? • What makes a tool and/or strategy appropriate for a given task? • Why does “what” we measure influence “how” we measure? • In what ways are the mathematical attributes of objects or processes measured, calculated and/or interpreted? • How precise to measurements and calculations need to be? • How can data be organized and represented to provide insight into the relationship between quantities?

		• How does the type of data influence the choice of display? • How can probability and data analysis be used to make predictions?	
Concepts	**Competencies**	**Resources**	**Assessments**
M04.D-M.2.1.1: Make a line plot to display a data set of measurements in fractions of a unit (e.g., intervals of ½, ¼, or 1/8). **M04.D-M.2.1.2:** Solve problems involving addition and subtraction of fractions by using information presented in line plots (line plots must be labeled with common denominators, such as ¼, 2/4, ¾). **M04.D-M.2.1.3:** Translate information from one type of display to another (table, chart, bar graph, or pictograph).	**CC.2.4.4.A.2:** Translate information from one type of data display to another. **CC.2.4.4.A.4:** Represent and interpret data involving fractions using information provided in a line plot.	• Math in Focus: Teacher's Edition – Chapter 4, Chapter 6 • Math in Focus: Student Book • Math in Focus: Student Workbook Edition • Assessments Manual • Reteach Manual • Extra Practice Manual • Enrichment Manual • School to Home Connections Manual • Manipulative Kit • Achieving Facts Fluency Manual • Transition Guide • Think Central Technology Platform • Exam View • SAS Website • ST Math • Exact Path Diagnostics	• District Adopted Published Chapter 4 Test Prep • District Adopted Published Chapter 6 Test Prep • District Created Curriculum Based Assessment • Exact Path Benchmark • PSSA
Vocabulary: add, addition, bar graph, chart, common denominator, data, difference, display, fraction, line, line plot, measurement, pictograph, problem, set, solve, subtraction, sum, table, translate, unit			

M04.D-M Measurement and Data	
Big Idea: M04.D-M.3 Geometric measurement: understand concepts of angle: measure and create angles.	
M04.D-M.3.1 Use appropriate tools and units to sketch an angle and	**Essential Question(s)**

determine angle measurements.		• What does it mean to estimate or analyze numerical quantities? • When is it is appropriate to estimate versus calculate? • What makes a tool and/or strategy appropriate for a given task? • Why does "what" we measure influence "how" we measure? • In what ways are the mathematical attributes of objects or processes measured, calculated and/or interpreted? • How precise to measurements and calculations need to be? • How can data be organized and represented to provide insight into the relationship between quantities? • How does the type of data influence the choice of display? • How can probability and data analysis be used to make predictions?	
Concepts	**Competencies**	**Resources**	**Assessments**
M04.D-M.3.1.1: Measure angles in whole-number degrees using a protractor. With the aid of a protractor, sketch angles of specified measure. **M04.D-M.3.1.2:** Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems. (Angles must be adjacent and non-overlapping.)	**CC.2.4.4.A.6:** Measure angles and use properties of adjacent angles to solve problems.	• Math in Focus: Teacher's Edition – Chapter 9 • Math in Focus: Student Book • Math in Focus: Student Workbook Edition • Assessments Manual • Reteach Manual • Extra Practice Manual • Enrichment Manual • School to Home Connections Manual • Manipulative Kit • Achieving Facts Fluency Manual • Transition Guide • Think Central Technology Platform • Exam View • SAS Website • ST Math • Exact Path Diagnostics	• District Adopted Published Chapter 9 Test Prep • District Created Curriculum Based Assessment • CDT • PSSA

Vocabulary: add, addition, angle, degree, diagram, difference, measure, protractor, subtract, subtraction, sum, unknown angle, whole number