Mendham Township
Math Curriculum

Grade 4

Learning Outcome	***CCSS***	***Resources***
1st Quarter	***Domain***	
Chapter 1—Place Value, Addition, and Subtraction to One Million • Model the 10-to-1 relationship among positions in the base-ten number system. • Read and write whole numbers in standard form, word form, and expanded form. • Compare and order whole numbers based on the values of the digits in each number. • Rename whole numbers by regrouping. • Add whole numbers and determine whether solutions to addition problems are reasonable. • Subtract whole numbers and determine whether solutions to subtraction problems are reasonable. • Use the strategy *draw a diagram* to solve comparison problems with addition and subtraction.	Operations & Algebraic Thinking CC.4.OA.3 Number and Operations Base Ten CC.4.NBT.1 CC.4.NBT.2 CC.4.NBT.3 CC.4.NBT.4	HMH **GO MATH** **Chapter 1** **Lessons 1.1-1.8**
Chapter 2 – Multiply by 1-Digit Numbers • Relate multiplication equations and comparison statements. • Solve problems involving multiplicative comparison and additive comparison. • Multiply tens, hundreds, and thousands by whole numbers through 10. • Estimate products by rounding and determine if exact answers to multiplication problems are reasonable. • Use the Distributive Property to multiply a 2-digit number by a 1-digit number. • Use expanded form to multiply a multi-digit number by a 1-digit number. • Use place value and partial products to multiply a multi-digit number by a 1-digit number. • Use mental math and properties to multiply a multi-digit number by a 1-digit number. • Use the draw a diagram strategy to solve multistep problems. • Use regrouping to multiply a 2-digit number by a 1-digit number. • Use regrouping to multiply a multi-digit number by a 1-digit number. • Represent and solve multi-step problems using equations	Operations & Algebraic Thinking CC.4.OA.1 CC.4.OA.2 CC.4.OA.3 Number and Operations Base Ten CC.4.NBT.1 CC.4.NBT.3 CC.4.NBT.5	HMH **GO MATH** **Chapter 2** **Lessons 2.1-2.12**

Chapter 3 – Multiply 2-Digit Numbers • Use place value and multiplication properties to multiply by tens. • Estimate products by rounding or by using compatible numbers. • Use area models and partial products to multiply 2-digit numbers. • Use place value and partial products to multiply 2-digit numbers. • Use regrouping to multiply 2-digit numbers. • Choose a method to multiply 2-digit numbers. • Use the strategy *draw a diagram* to solve multi-step multiplication problems.	Operations & Algebraic Thinking CC.4.OA.3 Number and Operations Base Ten CC.4.NBT.1 CC.4.NBT.3 CC.4.NBT.5	HMH **GO MATH** **Chapter 3** **Lessons 3.1-3.7**
Chapter 4—Divide by 1-Digit Numbers • Use multiples to estimate quotients. • Use models to divide whole numbers that do not divide evenly. • Use remainders to solve division problems. • Divide tens, hundreds, and thousands by whole numbers through 10. • Use compatible numbers to estimate quotients. • Use the Distributive Property to find quotients. • Use repeated subtraction and multiples to find quotients. • Use partial quotients to divide. • Use base-ten blocks to model division with regrouping. • Use place value to determine where to place the first digit of a quotient. • Divide multi-digit numbers by 1-digit divisors. • Solve problems by using the strategy *draw a diagram*.	Operations & Algebraic Thinking CC.4.OA.3 Number and Operations Base Ten CC.4.NBT.6 CC.4.NBT.1	HMH **GO MATH** **Chapter 4** **Lessons 4.1-4.12**
2nd Quarter	***Domain***	
Chapter 5– Factors, Multiples, and Patterns • Find all the factors of a number by using models. • Determine whether a number is a factor of a given number. • Solve problems by using the strategy *make a list*. • Understand the relationship between factors and multiples, and determine whether a number is a multiple of a given number. • Determine whether a number is prime or composite. • Generate a number pattern and describe features of the pattern.	Operations & Algebraic Thinking CC.4.OA.4 CC.4.OA.5	HMH **GO MATH** **Chapter 5** **Lessons 5.1-5.6**

Chapter 6 – Fraction Equivalence and Comparison • Use models to show equivalent fractions. • Use multiplication to generate equivalent fractions. • Write and identify equivalent fractions in simplest form. • Use equivalent fractions to represent a pair of fractions as fractions with a common denominator. • Use the strategy *make a table* to solve problems using equivalent fractions. • Compare fractions using benchmarks. • Compare fractions by first writing them as fractions with a common numerator or a common denominator. • Compare and order fractions.	Number and Operations-Fractions CC.4.NF.1 CC.4.NF.2	HMH **GO MATH** **Chapter 6** **Lessons 6.1-6.8**
Chapter 7 – Add and Subtract Fractions • Understand that to add and subtract fractions they must refer to parts of the same whole. • Decompose a fraction by writing it as a sum of fractions with the same denominators. • Use models to represent and find sums involving fractions. • Use models to represent and find differences involving fractions. • Solve word problems involving addition and subtraction with fractions. • Write fractions greater than 1 as mixed numbers and write mixed numbers as fractions greater than 1. • Add and subtract mixed numbers. • Rename mixed numbers to subtract. • Use the properties of addition to add fractions. • Use the strategy *act it out* to solve multi-step fraction problems.	Number and Operations-Fractions CC.4.NF.3	HMH **GO MATH** **Chapter 7** **Lessons 7.1-7.10**
Chapter 8 – Multiply Fractions by Whole Numbers • Write a fraction as a product of a whole number and a unit fraction. • Write a product of a whole number and a fraction as a product of a whole number and a unit fraction. • Use a model to multiply a fraction by a whole number. • Multiply a fraction by a whole number to solve a problem. • Use the strategy *draw a diagram* to solve comparison problems with fractions.	Number and Operations-Fractions CC.4.NF.4	HMH **GO MATH** **Chapter 8** **Lessons 8.1-8.5**

3rd Quarter	Domain	
Chapter 9 – Relate Fractions and Decimals • Record tenths as fractions and as decimals. • Round hundredths as fractions and as decimals. • Record tenths and hundredths as fractions and decimals. • Translate among representations of fractions, decimals, and money. • Solve problems by using the strategy *act it out.* • Add fractions when the denominators are 10 or 100. • Compare decimals to hundredths by reasoning about their size.	Number and Operations-Fractions CC.4.NF.5 CC.4.NF.6 CC.4.NF.7 Measurement and Data CC.4.MD.2	HMH **GO MATH** **Chapter 9** **Lessons 9.1-9.7**
Chapter 10– Two-Dimensional Figures • Identify and draw points, lines, line segments, rays, and angles. • Classify triangles by the size of their angles. • Identify and draw parallel lines and perpendicular lines. • Determine whether a figure has a line of symmetry. • Identify and draw lines of symmetry in two-dimensional figures. • Use the strategy *act it out* to solve pattern problems.	Operations & Algebraic Thinking CC.4.OA.5 Geometry CC.4.G.1 CC.4.G.2 CC.4.G.3	HMH **GO MATH** **Chapter 10** **Lessons 10.1-10.7**
Chapter 11 – Angles • Relate angles and fractional parts of a circle. • Relate degrees to fractional parts of a circle by understanding that an angle that measures one degree turns through n / 360 of a circle. • Use a protractor to measure an angle and to draw an angle with a given measure. • Determine the measure of an angle separated into parts. • Use the strategy *draw a diagram* to solve angle measurement problems.	Measurement and Data CC.4.MD.6 CC.4.MD.7	HMH **GO MATH** **Chapter 11** **Lessons 11.1-11.5**
Chapter 12 – Relative Sizes of Measurement Units • Use benchmarks to understand the relative sizes of measurement units. • Use models to compare customary units of length, weight, and volume. • Make and interpret line plots with fractional data. • Use models to compare metric units of length. • Use models to compare metric units of mass and liquid volume. • Use models to compare units of time.	Measurement and Data CC.4.MD.1 CC.4.MD.2 CC.4.MD.4	HMH **GO MATH** **Chapter 12** **Lessons 12.1-12.11**

• Use the strategy *draw a diagram* to solve elapsed time problems. • Solve problems involving mixed measures. • Use patterns to write number pairs for measurement units.		
4th Quarter	***Domain***	
Chapter 13 – Algebra: Perimeter and Area • Use a formula to find the perimeter of a rectangle. • Use a formula to find the area of a rectangle. • Find the area of combined rectangles. • Given perimeter or area, find the unknown measure of a side of a rectangle. • Use the strategy solve a simpler problem to solve area problems.	Measurement and Data CC.4.MD.3	HMH **GO MATH** **Chapter 13** **Lessons 13.1-13.5**
Getting Ready for Grade 5 • Find sums of decimal amounts in dollars and cents. • Find differences between decimal amounts in dollars and cents. • Use the order of operations to find the value of an expression. • Use patterns to divide by multiples of 10. • Use base-ten blocks to divide with 2-digit divisors. • Read and write whole numbers through millions. • Read and write decimals using place value. • Round decimals amounts including money amounts to the nearest whole number or dollar. • Compare decimals to hundredths using place value. • Decompose multiples of 10, 100, 1000. • Use multiplication to describe patterns. • Add fractions when one denominator is a multiple of the other. • Subtract fractions when one denominator is a multiple of the other. • Compare the size of the product to the size of each factor when multiplying fractions in real world situations. • Use repeated subtraction to solve problems involving division with fractions. • Write division problems as fractions. • Use ordered pairs to locate points on a grid. • Use tiling to find the area of a rectangle. • Find the product of three factors. • Find area of the base of a rectangular prism.	Operations & Algebraic Thinking CC.4.OA.1 CC.4.OA.4 CC.4.OA.5 CC.5.OA.3 Number and Operations Base Ten CC.4.NBT.1 CC.4.NBT.2 CC.4.NBT.3 CC.4.NBT.4 CC.4.NBT.5 CC.4.NBT.6 CC.5.NBT.1 CC.5.NBT.2 CC.5.NBT.3a/3b CC.5.NBT.4 CC.5.NBT.6 CC.5.NBT.7 Number and Operations-Fractions CC.4.NF.3d CC.4.NF.4c	HMH **GO MATH** **Review and Enrich Chapters** **Lessons 1-20**

	CC.4.NF.6 CC.4.NF.7 CC.5.NF.2 CC.5.NF.3 CC.5.NF.4b CC.5.NF.5b CC.5.NF.7b Measurement and Data CC.4.MD.1 CC.4.MD.3 CC.5.MD.5b CC.4.MD. Geometry CC.5.G.1	