NORTH MAC INTERMEDIATE SCHOOL
CURRICULUM GUIDE

Teachers: Third Grade

Grade Level: 3

Course: Math

Course Aims: Students will actively participate in instruction that will develop mathematical knowledge and numerical relationships through classifying, organizing, grouping, manipulating, reading, writing, and communicating about their math work.

Course Description: Math instruction in the third grade will reinforce skills and introduce new skills to develop students' knowledge and ability to solve math problems. Numeration and order concepts of integers, positive and negative numbers, and equivalent fractions will be taught. Measurement skills will include working with area, perimeter, diameter, circumference and temperature. Operationally, students will memorize multiplication and division facts, identify and find factors of numbers and products of two-digit numbers. In geometry, students will learn to identify points, segments, rays, and lines. They will construct and measure angles. Students will begin to use variables, parentheses, missing addends, and missing factors as they begin the study of algebra.

Textbook:
Title: Everyday Mathematics
ISBN: 978-0-07-657720-0
Publisher: McGraw-Hill Companies Inc.
Publication Date: 2012

Assessment: Unit Written Assessment, Open Response, White Board, Teacher Observation, Journal Pages, Home Links, Fast Math, Rocket Math, Games

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QUARTER: First COURSE: Math

Content	*Assessment*	*Common Core*	*Essential Questions*
Unit 1: Routines, Review, and Assessment • Numbers and Number Sequences • Number Grids • Tools for Mathematics • Analyzing and Displaying Data • Equivalent Names • The Language of Chance Events • Finding Differences • Extended Response	Unit Written Assessment Open Response White Board Teacher Observation Journal Pages Home Links Fast Math Rocket Math Games	SMP1-8 3.NBT.1, 3.NBT.2 3.MD.1, 3.MD.3 3.OA.9	Can I count money? Can I count by 2's and 10's? Can I complete Frames-and-Arrows puzzles? Can I write names in name collection boxes? Can I tell time? Can I make tally charts and bar graphs?

Quarter: First

Content	*Assessment*	*Common Core*	*Essential Questions*
Unit 2: Adding and Subtracting Whole Numbers • Fact Families • Extensions of Addition and Subtraction Facts • Addition and Subtraction • Parts-and-Total Number Stories • Change Number Stories • Comparison Number Stories • Partial-Sums Algorithm • Subtraction Algorithms • Addition with Three or More Addends • Extended Response	Unit Written Assessment Open Response White Board Teacher Observation Journal Pages Home Links Fast Math Rocket Math Games	SMP1 – 8 3.OA.8, 3.OA.9 3.NBT.1, 3.NBT.2	Can I solve extended addition and subtraction facts? Can I complete a "What's My Rule?" table for addition and subtraction? Can I use a number story diagram for addition and subtraction? Can I use the counting-up algorithm? Can I use the trades-first algorithm? Can I use the partial-sums algorithm?

Quarter: First

Content	*Assessment*	*Common Core*	*Essential Questions*
Unit 3: Linear Measures and Area • A Unit of Length. • Measure with a Ruler • Standard Linear Measures • Pattern Block Toss Experiment • Line Plot • Perimeter • Area • Number Models for Area • Diameter and Circumference • Extended Response	Unit Written Assessment Open Response White Board Teacher Observation Journal Pages Home Links Fast Math Rocket Math Games	SMP1-8 3.NF.2, 3.NF.2a &b 3.NF.3a, 3.G.1 3.MD.1, 3.MD.4, 3.MD.5, 3.MD.5a, 3.MD.5b, 3.MD.6, 3.MD.7a, 3.MD.7b, 3.MD.8	Can I make estimates? Can I solve number stories? Can I measure line segments? Can I make line plots? Can I find perimeter and area? Can I find the area of rectangles?

Quarter: Second

Content	*Assessment*	*Common Core*	*Essential Questions*
Unit 4: Multiplication and Division • Multiples of Equals • Multiplication Arrays • Equal Shares and Equal Groups • Division Ties to Multiplication • Multiplication Fact Power and Shortcuts • Baseball Multiplication • Arrays and Facts • Estimating Distances with a Map Scale • A Coin-Toss Experiment • Extended Response	Unit Written Assessment Open Response White Board Teacher Observation Journal Pages Home Links Fast Math Rocket Math Games	SMP1-8 3.OA.1; 3.OA.2; 3.OA.3; 3.OA.4; 3.OA.5; 3.OA.6, 3.OA.7; 3.OA.8, 3.OA.9 3.MD.3, 3.MD.6, 3.MD.7a, 3.MD.7b, 3.MD.7d, 3.MD.8 3.NBT.2	Do I know the first set of multiplication/division facts? Can I write multiplication/ division fact families? Can I fill in pieces of the number grid? Can I solve multiplication and division number stories? Do I know which digit is in the hundreds place? Can I solve "What's My Rule?" problems for multiplication and division?

Quarter: Second

Content	*Assessment*	*Common Core*	*Essential Questions*
Unit 5: Place Value in Whole Numbers and Decimals • Place Value Through Ten-Thousands • Reading, Writing, and Ordering Numbers • Place Value to Millions • Application: The U. S. Census • Very Large Numbers • Estimates • Polygons • Model Decimals with Base-10 Blocks • Tenths and Hundredths • Tenths and Hundredths of a Meter • Application: Rainfall • Place Value in Decimals • Sunrise-Sunset Line Graphs • Multiplication/Division Facts • Extended Response	Unit Written Assessment Open Response White Board Teacher Observation Journal Pages Home Links Fast Math Rocket Math Games	SMP1-8 3. MD.1, 3.MD.3, 3.MD.4, 3. MD.8 3.OA.7 3.NF.1	Can I read and write very large numbers? Can I read and write decimals? Can I use base 10 blocks to work with decimals? Can I add and subtract 2 digit numbers? Can I make estimates to check if my answer makes sense? Can I add and subtract extended facts?

Quarter: Third

Content	*Assessment*	*Common Core*	*Essential Questions*
Unit 6: Geometry • Drawing Angles • Measuring Angles • Symmetry • Congruence • Line Segments • Decimals • Polyhedrons • Multiplication/Division Facts • Extended Response	Unit Written Assessment Open Response White Board Teacher Observation Journal Pages Home Links Fast Math Rocket Math Games	SMP2,4,5-7 3.MD.8 3.G.1	Can I name polygons? Can I name three dimensional figures? Can I draw line segments, rays, and lines? Can I identify right angles? Can I identify parallel and intersecting line segments? Can I find and draw lines of symmetry?

Quarter: Third

Content	*Assessment*	*Common Core*	*Essential Questions*
Unit 7: Multiplication and Division • Patterns in Products • Multiplication Survey • Fact Power • Number Models with Parentheses • Apply Number Models with Parentheses • Extend Multiplication and Division Facts • Estimate Costs • Extend Facts: Products of Tens • Explore Ratios and Geometric Figures • Extended Response	Unit Written Assessment Open Response White Board Teacher Observation Journal Pages Home Links Fast Math Rocket Math Games	SMP1-8 3.OA.1, 3.OA.2, 3.OA.3, 3.OA.4, 3.OA.5, 3.OA.6, 3.OA.7, 3.OA.8, 3.OA.9 3.NBT.1, 3.NBT.2, 3.NBT.3	Can I use arrays to help answer questions? Do I know multiplication facts through 100? Can I share things equally? Can I draw parallel and intersecting lines? Can I solve 3-digit addition problems? Can I make estimates to check problems?

Quarter: Third

Content	*Assessment*	*Common Core*	*Essential Questions*
Unit 8: Fractions • Name Parts with Fractions • Blocks-in-a-Bag Experiment • Explore Fractions • Use Number Line Posters to Identify Fractions • Equivalent Fractions • Fractions Greater than One • Fractions in Number Stories • Extended Response • Multiplication Facts • Division Facts	Unit Written Assessment Open Response White Board Teacher Observation Journal Pages Home Links Fast Math Rocket Math Games	SMP1-8 3.NF.1, 3.NF.2.a,b, 3.NF.3.a-d 3.G.2 3.OA.3, 3.OA.5 3.MD.4	Can I read and write fractions? Can I compare fractions to one-half? Can I find fractional parts of collections? Can I write fractions on a number line? Can I complete a symmetrical shape? Can I tell the value of each digit in a decimal?

Quarter: Fourth

Content	*Assessment*	*Common Core*	*Essential Questions*
Unit 9: Multiplication and Division • Multiply and Divide with multiples of 10, 100, 1000. • Multiply 1 digit numbers by multi-digit numbers. • Partial products algorithm. • Multiply using mental math and partial products algorithm. • Whole number factors of whole numbers. • Share whole dollar amounts equally. • Explore computational strategies for division and interpret remainders. • Lattice multiplication method. • 2 digit multiplication using arrays • Extend the partial-products algorithm to products of 2 digit numbers and 2 digit multiples of 10. • Extend the partial products algorithm to products of any 2 digit numbers. • Positive and negative numbers.	Unit Written Assessment Open Response White Board Teacher Observation Journal Pages Home Links Fast Math Rocket Math Games	SMP1-8 3.OA.1,2,3,4,5,6,7,8 3.NBT.1,2,3,5b,7a-d 3.NF.1,2,2a,2b, 3.NF.3,3a,3b,3d 3.MD.2,4, 3.MD.5b,6,7a-d,8 3.MO.8 3.G.1 3.MB.7,7b	Can I solve multiplication number stories? Can I use partial products algorithm to solve multiplication problems? Can I use the lattice method to solve multiplication problems? Can I compare fractions using Fraction Cards? Can I find the area and perimeter of a shape? Can I estimate money amounts?

Quarter: Fourth

Content	*Assessment*	*Common Core*	*Essential Questions*
Unit 10: Measurement and Data • Review units and tools for measuring length in US customary and metric systems. • Volume • Measure the weight of objects. • Explore weight and volume by measuring objects' weight and volume. • Measure liquid volume in terms of capacity. • Interpret a set of data- focusing on the mean and the median. • Calculate the mean as a method of interpreting a set of data. • Memory keys on a calculator. • Use mean, median, and mode as a method of interpreting data. • Plot coordinates on a coordinate grid. • Multiplication/Division Facts • Extended Response	Unit Written Assessment Open Response White Board Teacher Observation Journal Pages Home Links Fast Math Rocket Math Games	SMP1-8 3.MD.1,2,3,4,5,5b,7,7a-b,8 3.OA.3,5,7,8 3.G.1 3.NF.1,3,3a,3b,3d 3.NBT.2,3	Can I measure to the nearest half inch and half centimeter? Can I make a frequency table to show data? Can I find the median, mode, and mean of a set of data? Can I find fractional parts of a collection? Can I multiply three digit numbers by one digit numbers?