


Grade 5 EDM 2007 to Alaska GLE's

Unit 1					
Lesson	MM&R	Math Mess		Lesson parts 1 & 2	Lesson part 3
1.1	E&C-2		N-2	PS-3 Solving Problems Using Student reference Book	R: PS-5 Following Written Directions Ex.P: N-1 5MM
1.2	E&C-2	GR.4 N-6	N-10	Grade 4:N-6 Reviewing Arrays Finding All Possible Rectangular Arrays for A Number N-9 Adjusting Activity N-6 Recognizing Fact Families	R: Grade 4 N-6 Defining Rows and Columns
1.3	E&C-2	GR.4 N-6	N-10	E&C-2 Introducing the Multiplication Fact Routine N-10 Finding Factor Pairs E&C-2 Playing Multiplication Top-It	R: N-10 Factoring Numbers with Cube Arrays Ex.P: N-10 5MM
1.4	E&C-2	N-10	N-10	N-6 Reviewing the Meaning of Divisibility N-10 Playing factor Captor E&C-2; N-9 Using fact Triangles to Practice Multiplication Facts	R: N-9 Exploring Multiplication and Division Relationships
1.5	E&C-2	N-6	N-2	While divisibility rules are not mentioned in GLE's until seventh grade, factoring is a meaning part of this. N-6 Using a Calculator to Test for Divisibility Rules N-6 Introducing Divisibility Rules N-10 Playing Factor Captor	R: N-6 Practicing Divisibility with Counters
1.6	E&C-2	N-10 4 th N-6	N-10	Prime and "Composite Numbers are not mentioned in K-6 GLE's but knowing factors of a number is crucial to defining prime and composite. N-10 Defining Prime and Composite Numbers N-10 Clarifying Prime and Composite Numbers N-10 Develop a Strategy for Playing Factor Captor	Enrich: 7 th N-8 Ex.P: 7 th N-8 5MM

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1.7	E&C-2	GR.4 N-6	7 th	Exponents except for powers of ten are not mentioned in K-6 GLE's however factoring is essential to recognizing square numbers. N-10 Finding Other Square Numbers Investigating the Properties of Square Numbers E&C-2; N-10 Play factor Bingo	R: N-10 Investigating Square Number Facts
1.8	E&C-2	E&C-2	E&C-2	N-6 Unsquaring Numbers E&C-2 Playing Multiplication Top-It	Ex.P: 5MM no square routes in GLE's
1.9	E&C-2		N-10	N-10 Introduction to Factor Strings N-10 Finding Factor Strings and Prime Factorization N-10 Finding Prime Factorization using Factor Trees E&C-2 play Name That Number	R: N-10 Using the Sieve of Eratosthenes


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Unit 2					
Lesson	MM&R	Math Mess	★	Lesson parts 1 & 2	Lesson part 3
2.1	E&C-2	M-1	E&C-2	E&C-1 Estimation Challenge Problem S&P-3; E&C-1 Sharing Results	R: E&C-1 Identify Estimation Strategies Enrich: E&C-1 Estimate Totals
2.2	N-3	N-2	N-8; E&C-3	E&C-3 Reviewing Algorithms: Partial-Sums Method N-8; E&C-3 Reviewing algorithms: Column-Addition Method N-8; E&C-3 Adding Whole Numbers and Decimals E&C-1 Sharing Results N-2 Play Addition Top-It	R: N-2 Build Numbers with Base-10 Blocks Enrich: PS-3; N-2; Use Place Value to Solve Addition Problems
2.3	N-3	F&R-1	N-8; E&C-3	N-8; E&C-3 Reviewing Subtraction Algorithms N-8; E&C-3 Subtract Whole Numbers and Decimals N-8; E&C-3 Play Subtraction Target Prac	R: 3 rd N-6 Make and Break Apart Numbers Enrich: PS-3 Compare Methods of Subtraction
2.4	N-3	E&C-3 PS-3	F&R-5	F&R-5 Use Open Number Sentences 6 th F&R-5 Solve Addition and Subtraction Number Stories PS-3 Play Name That Number	R: PS-1 Solve Situation Diagrams Enrich: F&R-5 Solve Number Stories and Open Number Sentences
2.5	N-2 3 rd F&R-5		N-2 3 rd F&R-5	6 th S&P-3 Estimate a Mean Reaction Time for the Class S&P-1 Estimating Reaction Time S&P-1 Displaying Reaction Time in Line Plots PS-3 Sharing Results N-2 Play High Number Toss: Decimal Version	R: N-2 Missing Decimals on the Number Line Enrich: S&P-2 Interpreting Data
2.6	7 th	S&P-1	7 th	7 th N- Introduce t Probability Meter Poster S&P-1; S&P-4 Estimate the Chance That a Thumbtack will Land Point Down E&C-1 Estimate Magnitude for Addition and Subtraction.	R: 7 th N-4 Compare Fractions, Decimals, and Percents Enrich: S&P-4; PS-3 Making Spinners

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2.7	E&C-3		E&C-3	E&C-1 Estimating Products E&C -1 Play Multiplication Bull's Eye S&P-1; S&P-4 Experiment with Spinners	R: E&C-2 Practice Extended Facts Ex.P: E&C-1 MM
2.8	E&C-2	E&C-1	E&C-1	E&C-4 Review the Partial-Products Method with Whole Numbers E&C-4 Review Multiplication of Decimals E&C-4 Practice Multiplication of Whole Numbers and Decimals F&R-5 Solving Number Stories	R: E&C-4 Modeling the Partial-Products Method Enrich: PS-2 Multiplying Numbers That End in 9
2.9	E&C-2	E&C-4	E&C-4	E&C-4 Review Lattice Method of Multiplication E&C-4 Lattice for Decimal Multiplication E&C-4 Multiply Whole Numbers and Decimals by the Lattice Method N-10 Play Factor Bingo	Enrich: E&C-4 Exploring an Ancient Multiplication Method Ex.P: E&C-4 MM
2.10	M-3	M-3 PS-3 PS-5	N-2	PS-3; PS-5 Solving a Tapping Problem with Sampling Strategies E&C-1 Using sampling to Make an Estimate PS-3; PS-5; E&C-1 Making Time Estimates for 1 Billion and 1 Trillion Taps PS-3 Sharing and Discussing the Results N-2 Play High-Number Toss	R: N-2 Play Number Top-It (7 Digits) Enrich:E&C-1; PS-1 Apply Estimation Strategies


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Unit 3					
Lesson	MM&R	Math Mess		Lesson parts 1 & 2	Lesson part 3
3.1	N-2	PS-5	N-2	PS-5 Examining the American Tour S&P- 2 Comparing the 1790 Census with the 2000 Census. S&P-4 posting U.S. Census Results on the Probability Meter S&P-1 Taking a Classroom Census N-2 Play High Number Toss: Decimal Version	R: S&P-2 Reading for Information Enrich: S&P-2 Analyzing Data
3.2	E&C-2	S&P-2	E&C-3	PS-5 Estimating Colonial Populations S&P-2 Use the Population Table to Answer Questions E&C-1 Estimating and Calculating Sums and Differences	R: F&R-1 Solving Place-Value Puzzles Enrich: S&P-2 Interpreting patterns from Data Ex.P. S&P-2 MM
3.3	N-2	PS-1	PS-1	G-1 Finding Pattern-Block Angle Measures E&C-4 Play a Variation of Multiplication Top-It	R: 4 th G-1 Review Ways to name Angles Enrich: G-9 Name Segments, Lengths, and Collinear Point Ex.P. No GLE addresses measuring angles.
3.4	G-3	4 th G-1		No GLE in grades 3 – 6 addresses the measuring and drawing of angles. S&P-2 Interpreting a Bar Graph	R: G-9 Identifying Points, Lines, and Angles Enrich: Measuring Angles – no GLE
3.5	E&C-2	6 th G-2	E&C-2	6 th G-5 Copying Line Segments 6 th G-5 Finding Lengths with a Compass PS-2 Measuring Angles Formed by Intersecting Lines N-2 Play High Number Toss: Decimal Version	R: M-8 Reading a Ruler Enrich: PS-5 Inscribing a Regular Hexagon in a Circle
3.6	E&C-1	G-1	N-2	G-4 Copy a Triangle Using Any Available Tool G-4 Copy a Triangle Without a Protractor G-4 Copy a Triangle with Compass and Straightedge Only	R: G-1 Play Triangle Sort Enrich: G-1 Play Side and Angles: Triangles Ex.P: G-1 Play Where do I fit In?


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3.7	G-1; G-9	G-1	G-1	G-1 Sort Polygons by Their Properties G-1 Play Polygon Capture	R: G-1 Sort Attribute Blocks by Two Properties Enrich: G-1 Connecting Vertices
3.8	E&C-1	No GLE	No GLE	G-5 Exploring Tessellations G-5 Exploring Regular Tessellations	R: G-3 Making Tessellations with Pattern Blocks Enrich: G-5 Naming Tessellations
3.9	E&C-2	No GLE	No GLE	No GLE's for Angle Measurements S&P-3 Finding the Median for the Sums of Angles N-3 Practicing Expanded Notation with Decimals	Enrich: G-5 Tessellating Quadrangles
3.10	E&C-1 E&C-2	N-4	E&C-1	G-4 Draw Circles with a Geometry Template PS-3 Solve Problems Using the Geometry Template G-1 Play Polygon Capture	Enrich: PS-3 Solve Geometry Template Challenges

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Unit 4					
Lesson	MM&R	Math Mess		Lesson parts 1 & 2	Lesson part 3
4.1	N—10	N-10	E&C - 4	E&C-2 Practice Division Facts and Extended Division Facts E&C-4 Using A Mental Division Strategy E&C 2; E&C-4 Play Name That Number	R: E&C-2 Using Equivalent Names for Numbers Enrich: 7 th E&C- 7 Explore More divisibility Rules Ex.P. E&C-4 MM
4.2	N-10 E&C-2	E&C-4	E&C-4	E&C-4 Review the partial-Quotients Algorithm E&C-4 Using the Partial-Quotients Algorithm E&C-4 Introduce Division Dash	R: N-10 Review Divisibility Rules Enrich: N-10
4.3	No GLE's for	No GLE's for calculators	N-2	M-8; PS-5 Use a map Scale for Straight-Path Distances M-8; PS-5 Find Distances in the United States with a Map Scale N-10 Finding Factors	R: M-8; E&C-1 Review Measurement and Rounding Enrich: PS-5 Estimating Curved-Path Distances Ex.P: M-8; PS-5 Estimating a Route Path
4.4	No GLE's for calculators	N-10	E&C-4	N-10 Introducing Divisibility Dash E&C-4 Review the Partial Quotients Algorithm E&C-4 Use the Partial-Quotient Algorithm	R: N-3 Use Expanded Notation to Find Multiples Ex.P: E&C-4 Practice Division
4.5	No GLE's for calculators	E&C-1 PS-3 PS-5	E&C-1	E&C-1 Make Magnitude Estimates before Calculating Quotients N-10 Play division Top-It	R: N-6 Modeling Division with Base-10 Blocks Enrich: E&C-4 Exploring an Alternative Division Algorithm
4.6	E&C-1	E&C-4 PS-3	PS-4	PS-4 Solving Division Number Stories and Interpreting Remainders PS-4 Interpreting Remainders in Division Number Stories N-2 Solving Place-Value Puzzles	R: PS-3 Finding Number Story Information Enrich: PS-3 Writing Division Number Stories Ex.P: E&C-4 MM
4.7	E&C-1	E&C-2	E&C-2	F&R-5 First to 100 Game No GLE's for calculators G-1 Review Types of Triangles	R: F&R – 5 Solving Unknown Quantities Enrich: F&R-5; PS-5 Algebra Election Ex.P: F&R-5 Solve Open Number Sentences


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Unit 5					
Lesson	MM&R	Math Mess		Lesson parts 1 & 2	Lesson part 3
5.1	N-4	N-4	N-4	N-4 Review Basic Fraction Ideas N-5 Solve parts-and Whole Problems with Fractions N-4 Finding a Fraction of Whole N-5 Play Fraction Top-It	R: N-4 Reviewing Whole-Number Relationships in Number Stories Enrich: N-5 Exploring Relationships in Number Stories
5.2	N-5	N-4	N-4	N-5 Use Pattern Blocks to Model Mixed Numbers. N-5 Model Mixed Numbers N-4 Change ONE with Fractions and Mixed Numbers PS-5 Review Fractions on a Ruler	R: N-4 Find Fractions of a Whole with Pattern Blocks Enrich: PS-4 Solve Pattern-Block Puzzles Ex.P: N-4; PS-3 solve "Fraction-of" Problems
5.3	6 th N-1	6 th N-1	N-4	6 th N-1 Ordering Fractions N-4 Introduce the Fraction-Stick Chart N-7 Add with Fraction Sticks N-7 Solve Fraction Number Stories N-7 Play Fraction Top-It	R: N-4 Make Fraction Strips Enrich: F&R – 1; F&R-2 Explore a Fraction-Stick Chart
5.4	No calculators in GLE's	N-4	N-5	N-5 Find Equivalent Fractions N-5 Splitting Fraction sticks to Make Equivalent Fractions N-5; F&R-2 Formulate Rules for General Equivalent Fractions N-5 Find Equivalent Fractions N-10 Play Factor Captor	R: N-5 Explore Equivalent Fractions Enrich: N-5 Use the Division Rule to Explore Simplest Form Ex.P: N-5 5-MM
5.5	7 th	6 th N-1	7 th	7 th N-4 Write Fractions and Decimals 7 th N-4 Rename Fractions as Decimals E&C-1 Rounding Decimals 6 th N-1 Play Estimation Squeeze	R: E&C-1 Rounding Numbers Ex.P: 7 th N-4 Rename Fractions as Decimals
5.6	6 th N-1	N-4	6 th N-1	7 th N-4 Writing Fractions as Decimals 7 th N-4 Fill in a Table of Decimal/Fraction Equivalents N-10 Review Prime Factorization	R: N-2 Play Number Top-It Enrich: N-4 Write Fraction and Decimal Equivalents for a Shaded 100 Grid. Ex.P: 6 th N-1 5-MM

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5.7	PS-3	7 th	7 th	7 th N-4 Convert Fractions to Decimals 7 th N-4 Introduce Frac-Tac-Toe 7 th N-4 Find Decimal Equivalents for Thirds, Sixths, and Ninths	R: 6 th N-1 Recording Decimal Place Value Enrich: 6 th E&C-4 Extend the Partial-Quotients Division Algorithm to Decimals
5.8	N-2	7 th	7 th	6 th N-1 Review the Meaning of Percent 6 th N-1 Explore the Purpose of Percent 7 th N-4 Convert Fractions to Percents 7 th N-4 Play 2-4-5-10 Frac-Tac-Toe (%)	R: 7 th N-8 Play Fraction/Percent Concentration Enrich: 8 th E&C-3 Solve Percent-of Number Stories Ex.P: PS-1 Write and Solve Number Stories
5.9	7 th	S&P-2	S&P-2	S&P-2 Review Parts of Bar Graphs S&P-1 Graph Snack-Survey Data	R: 6 th S&P-1 Act Out the Construction of a Circle Graph Ex.P N-5 Find Equivalent Fractions
5.10	Percents of Circles not in GLE's	Percents of Circles not in GLE's	Percents of Circles not in GLE's	G-6 Measure Angles, Perimeter, and Area	R: Percents of Circles not in GLE's Enrich: PS-5 Conduct an Eye Test 7 th N-8 5-MM
5.11	7 th	S&P-1	7 th	7 th S&P-1 Construct Circle Graphs N-4 Play Fraction Of 7 th S&P-1 Construct Circle Graph for the Snack Survey Data	R: 7 th S&P-1 Measuring Circle Graphs Enrich: 7 th N-8; S&P-1 Calculate Percents
5.12	7 th	P-5	E&C-1	PS-5 Interpret Math in Text and Graphics E&C-2 Play Name That Number	Enrich: Read about Math Instruction in History and Solving Related Problems Ex.P: 7 th S&P-1 Convert Bar Graphs to Circle Graphs.


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Unit 6					
Lesson	MM&R	Math Mess		Lesson parts 1 & 2	Lesson part 3
6.1	E&C-1	S&P-4	S&P-1	S&P-1 Organize the Class Data: States Students Have Visited S&P-2 Describing Data S&P-1 Organize the Class Data: States Adults Have Visited E&C-1 Rounding Numbers	R: S&P-3 Review Data Landmarks Ex.P: S&P-3 5-MM
6.2	N-2		M-8	M-8 Finding Personal Measures S&P-1 Explain the Challenge Questions for Finish First	R: M-8 Measuring in Centimeters and Millimeters Enrich: S&P-4 Investigate Natural Measure Relationships
6.3	7 th		7 th	M-8; PS-5 Measure the Great Span 7 th S&P-1 Organize the Data in a Stem-and-Leaf Plot No GLE for measuring angles. S&P-1 Play Finish First	R: No GLE for measuring angles Ex.P: 7 th S&P-1 Organize Data into a Stem-and-Leaf Plot
6.4	E&C-1	S&P-3	S&P-2	S&P-2 Identify Mystery Line Plots 7 th S&P-1 Identify Mystery Stem-and-Leaf Plots. S&P-1 Play Finish First	R: S&P-3 Finding the Mean Enrich: S&P-3; PS-5 Analyze spelling Test Scores Ex.P: S&P-2 match Mystery Plots
6.5	N-4	7 th	7 th	S&P-1 Take a Small Sample of Candy Colors S&P-1; S&P-4 Graph and Predict on the Basis of a Sample S&P-1 Play Finish First	M-4 Identifying the Whole Enrich: PS-4 Investigate Sample Size
6.6	N-5	S&P-4	7 th	PS-5 Discuss the Definition and Purpose of a Survey S&P-1 Display and analyze the Survey Data 7 th N-8 Frac-Tac-Toe	R: 7 th S&P-1 Explore Stem-and-Leaf Plot Data Ex.P: 7 th S&P-1 Make Stem-and-Leaf Plots

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6.7	7 th	S&P-2 PS-5	7 th	S&P-2; PS-5 Introduce the Growing Seasons Map S&P-2; PS-5 Use Climate Maps to Answer Questions PS-1; PS-3 Solve Number Stories	Enrich: PS-3; PS-5 Examine Contour Map Questions EX.P: PS-5; Examine Contour Maps
6.8	N-5	E&C-3	E&C-3	E&C-3; N-7 Add and Subtract with a Fraction Slide Rule E&C-3; N-7 Add and Subtract Fractions and Mixed Numbers on the Slide Rule. E&C-3; N-7 Use Fraction Sticks N-10 Play Divisibility Dash	R: 6 th N-1 Locate Fractions on a Number Line Enrich: E&C-3; N-7 Ex.P: E&C-3 5-MM
6.9	6 th N-7 6 th E&C-3	N-4 PS-5	6 th N-7	PS-3 Discuss Strategies for Adding and Subtracting Fractions. N-5 use a Multiplication Table to Explore Equivalent Fractions 6 th N-7; 6 th E&C-3 use a Common Denominator N-5 Play Fraction Capture	Enrich: PS-5; PS-3; N-7 Model Fractions with a Military Clock Ex.P: 6 th M-4 writing Elapsed Time Number Stories
6.10	N-5	N-10 6 th N-9	N-10 6 th N-9	N-10; 6 th N-9 Use Multiples and Factors to Find Common Denominators 6 th N-7 Using Common Denominators PS-1; PS-3 Fraction Problems	R: 6 th N-9 Find the Least Common Multiple Ex.P: 6 th N-7 & N-9 Find common Denominators


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Unit 7					
Lesson	MM&R	Math Mess		Lesson parts 1 & 2	Lesson part 3
7.1	N-10	8 th N-5	8 th N-5	8 th N-5 Working with Exponents on a Calculator 8 th N-5 Play Exponent Ball	R: 8 th N-5 Exploring Exponents Enrich: 6 th F&R-1; 8 th N-5 Explore Patterns In Fibonacci Numbers. Ex. P: 8 th N-5; 6 th S&P-5 Count Computer Passwords
7.2	N-2	8 th N-5	8 th N-5	8 th N-3 Introducing Exponential Notation for Powers of 10 8 th N-3 Use Guides for Powers of Ten F&R-5 Play First to 100	R: 6 th F&R-1 Find Patterns in a Place-Value Chart Enrich: 8 th N-5
7.3	N-2	8 th N-5	8 th N-5	8 th N-5 Translation Scientific Notation 8 th N-5 Play Scientific-Notation Toss N-3 Review Expanded Notation	R: N-2; N-4 Use Place Value to Rename Numbers Ex.P: N-3 Write Numbers in Expanded Notation
7.4	N-2	8 th N-8	8 th N-8	PS-3 Match Number stories to Appropriate Expressions E&C-3: E&C-4; E&C-4 Play Name That Number	R: 8 th N-8 Review Parentheses in Number Sentences Enrich: PS -3 Describe Dot Patterns with Number Models Ex.P: 8 th N-8 SMM
7.5	8 th N-5	PS-3	N-2	8 th N-8 Introducing the Rules for Order of Operations 8 th N-8 Evaluating Expressions by applying the Rules for Order of Operations N-5 Practice Renaming Fractions	R: 8 th N-8 Evaluating Expressions Enrich: 8 th N-5; 6 th F&R-1 Discover Exponent Patterns
7.6	6 th N-7	S&P-1	6 th N-7	S&P-1 Comparing Graphs S&P-1 Making Line Graphs S&P-2 American Tour: Compare Data on Line Graphs	R: S&P-2 Collect Line Graphs Ex.P: S&P-1 Graph Sets of Data on a Line Graph

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7.7	8 th N-5	N-2	8 th N-8	8 th N-1 Graph Positive and Negative Numbers on a Number Line 8 th N-1 Compare and Order Positive and Negative Numbers E&C-2: E&C-3 Play Name That Number	R: 7 th N-1 Skip-Count with Negative Numbers Enrich: 7 th E&C-4 Explore Positive and Negative Numbers in Price Changes
7.8	6 th N-1		8 th E&C-2	8 th E&C-2 Use + and – Counters calculate Account Balances 8 th E&C-2 Finding Account Balances 8 th E&C-2 finding Sums of Positive and Negative Numbers 8 th E&C-2 Developing rules for Adding Positive and Negative Numbers M-8 Measuring and Drawing Line Segments	R: 8 th E&C-2 Play the Credits/Debits Game Enrich: 8 th E&C-2 Playing 500
7.9	8 th E&C-2	8 th E&C-2	N-1 8 th] N- 5	8 th E&C-2 Develop a rule for subtracting Positive and Negative Numbers 8 th E&C-2 Subtracting Positive and Negative Numbers N-2 Play High-Number Toss	Enrich: PS-5; 8 th N-2 Comparing Elevation Ex.P: 8 th E&C-2 5MM
7.10	7 th N-4	8 th E&C-2	6 th F&R-1	8 th E&C-2 Demonstrating the Slide Rule 8 th E&C-2 Solving Addition and subtraction Problems on the slide Rule 8 th E&C-2 Play Top-It Games Positive and Negative Numbers	Enrich: 8 th E&C-2 use a Slide Rule for Mixed Numbers Ex.P: 8 th E&C-2 5MM
7.11	N-5	8 th E&C-2	N-5	8 th E&C-2 Introduce Operations with Signed Numbers on a Calculator	R: 8 th E&C-2 Broken Calculator


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Unit 8					
Lesson	MM&R	Math Mess		Lesson parts 1 & 2	Lesson part 3
8.1	6 th N-1	6 th N-1	6 th N-1	N-5 Rename Fractions as Equivalent Fractions. 6 th N-6 Compare Fractions Using common Denominators N-5 Find Equivalent Fractions. 6 th N-1 Play Build-It	R: 6 th N-1 Order Fractions on a Rope Enrich: 6 th N-9 explore Least common Multiples
8.2	N-5	6 th N-7	6 th N-7	N-7 Add Mixed Numbers with Fractions Having Like Denominators 6 th N-7 Add Mixed Numbers with Fractions Having Unlike Denominators 6 th N-7 Adding Mixed Numbers	R: 6 th N-7 Adding Mixed Numbers Ex.P: N-5 Play Fraction Capture
8.3	6 th N-9	N-7	6 th N-7	6 th N-7 Subtract Mixed Numbers with Renaming N-7 Subtracting Mixed Numbers 6 th N-7 Play Mixed-Number Spin	R: N-7 Subtract Mixed Numbers Enrich: 6 th F&R-1 Explore a Fraction Addition Pattern Ex.P: N-7 SMM
8.4	6 th N-1	6 th N-1	6 th N-1	6 th N-7 Introduce Fraction Action, Fraction Friction. No reference to use of calculators on GLE's	R: 6 th N-7 Chart Common Denominators Enrich: 7 th N-4 Explore Equivalent Fractions Ex.P: calculators No GLE's
8.5	N-4	N-4	N-4	N-4 Use Unit Fractions to Find a Fraction of a Number 7 th N-5 Modeling How to Find a Fraction of a Fraction 6 th N-7 Play Fraction Spin	R: N-5 Modeling Equivalent Fractions Enrich: Calculators not in GLE's
8.6	4 th N-6	7 th N-5	7 th N-5	7 th N-5 Use the Area Model for fraction Multiplication. 7 th E&C-4 Derive a Fraction Multiplication Algorithm	R: 7 th N-5 Support Fraction Multiplication Concepts Ex.P: 7 th N-5 Multiplying Fractions

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8.7	7 th N-5	N-4	7 th N-3	7 th N-5 Use an Area Model to Represent the Product of a Fraction and a whole Number 7 th E&C-4 Use an Algorithm to Multiply a Fraction and a whole Number. 8 th N-8 Play Name That Number	R: N-5 Write Whole Numbers as Fractions Enrich: N-10 simplify Fractions Factors Ex.P: 7 th N-5 5MM
8.8	N-5	N-5	7 th N-5	7 th N-5 Multiply with Mixed Numbers. 7 th N-5 Multiply Fractions and Mixed Numbers N-4 Use unit Fractions to Find a Fraction of a Number	R: 6 th N-1 Ordering Improper Fractions Ex.P: 7 th N-4 Play Frac-Tac-Toe
8.9	7 th N-4	8 th E&C-3	7 th N-4	8 th E&C-4 Find the Percent of a Number 8 th E&C-4 Use Fractions to Find the Percent of a Number 8 th E&C-4 Calculate a Percent Discount	R: 8 th E&C-4 Find the Percent of a Number Enrich: 8 th E&C-4 Calculate Discounts
8.10	N-4	N-4	7 th N-4	7 th N-4 Using Unit Fractions to Find the Whole 7 th N-4 use Unit Percents to find the Whole N-10 Play Factor Captor	R: 7 th N-4 Find the Fraction and the Percent of a Number Enrich: 7 th N-4 Find the Fraction and the Percent of a Number
8.11	8 th E&C-3	S&P-1	N-5	S&P-1 Investigate Data in the American Tour 8 th E&C-3 solving Percent-of-a-Number Problems S&P-2 Estimate Rural and Urban Populations. N-5 Play Fraction Capture	R: no calculators in GLE's. Enrich: S&P-1 Chart Changes in Food Consumption
8.12	6 th N-9	8 th E&C-2	8 th E&C-2	8 th E&C-2 Introduce Common Denominator Division 8 th E&C-2 Practice Division with Fractions	R: 6 th N-1 Play Build-It


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Unit 9					
Lesson	MM&R	Math Mess		Lesson parts 1 & 2	Lesson part 3
9.1	8 th N-3	G-8	8 th N-3	N-3 Graphing a Picture N-3 Play Hidden Treasure Game S&P-2 Match Number Stories to Graphs	R: PS-5 find locations on a Map Enrich: PS-5 Find Distances.
9.2	N-10	G-8	G-8	N-3 Locate, Plot, and Read Number Pairs G-3; G-8 Plot Ordered Number pairs and Transform Figures 8 th G-5 Discuss the Results of Operation on Number Pairs	R: 6 th N-1 Locate Points on a Number Line Enrich: G-4 Scaling Graphs Ex.P G-8 Plotting Pictures
9.3	8 th N-7	8 th N-7	G-8	G-3; G-8 Plot Ordered Number Pairs and Transforming Figures 8 th G-5 Discuss Operations on Ordered Number Pairs. G-8 Play Hidden Treasure	R: G-8 Build a Coordinate Grid Enrich: 6 th G-6 Explore the Line of Reflection
9.4	7 th N-4	PS-4	G-6	G-6 Find the Area of a Rectangle PS-3; G-6 Discuss Formulas for the Area of a Rectangle G-6 Apply the Area Formula G-1 Review Two-Dimensional Shapes	R: G-6 Compare Perimeter and Area. Enrich: No GLE's on perimeter or area of irregular shapes. Ex.P: G-6 5-MM
9.5	F&R-1		G-4	6 th G-7 Find the Area of a Nonrectangular Figure. 6 th G-7 Introduce the Rectangle Method fro Finding Area. 6 th G-7 use the Rectangle Method for Triangles and Parallelograms. 7 th N-4 Play Frac-Tac-Toe	R: 6 th G-7 Build Rectangles Ex.P: PS-3 Read <i>Spaghetti and Meatballs for All</i>
9.6	G-6		6 th G-7	G-6 Identify Base and Height G-6 Use the Rectangle Method for Triangles and Parallelograms G-6 Develop area Formulas for Triangles and Parallelograms 5 th N-7 Play Fraction Action, Fraction Friction	R: 6 th G-7 Explore the Area of Parallelograms and Triangles Enrich: 6 th G-7 Calculate Area Ex.P: 6 th G-7 5-MM

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9.7	N-4	PS-3	N-4	PS-5; G-8 Locate Points on Land or Water 8 th N-4 Solving the four-4s Problem	Enrich: S&P-1; E&C-1 estimate the Ground Level Area of the School. Ex.P: G-6 Use Formulas to Find Area
9.8	E&C-1	6 th G-9	6 th G-9	6 th G-9 Define Base and Height for Rectangular Prisms 6 th G-9 Develop a Formula for Volume 6 th G-9 Build a Rectangular Prism with a Given Volume 6 th G-9 Find the volumes of Rectangular Prisms	R: G-2 Analyze Prism Nets for Cubes Enrich: 6 th G-9 Find the volume of One Stick-On Note. Ex.P: 6 th G-9 5-MM
9.9	G-2	6 th G-3	G-2	6 th G-9 Verify the Volume formula for Prisms 6 th G-9 Find the volume of Prisms	R: 6 th G-2 Analyze Prism Nets for Triangular Prisms Enrich: 6 th G-2 Building Nets Ex.P: G-6 5-MM
9.10	6 th M - 2	PS-5	PS-5	M-3 Demonstrate that 1 Liter Equals 1,000 Milliliters. M-3 Demonstrate That 1 Liter Equals 1,000 Cubic Centimeters. PS-5; 6 th G-9 solving Problems about Volume and Capacity 6 th G-9 Exploring Volume G-6 Finding the Area of Regions	R: 6 th M-2 compare the Capacity of Containers Ex.P: 6 th G-6 Read a Story about Volume.


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Unit 10					
Lesson	MM&R	Math Mess		Lesson parts 1 & 2	Lesson part 3
10.1	E&C-2	PS-5	E&C-2	PS-5 Demonstrate How to Solve Pan-Balance Problems 7 th E&C-5 Solving Pan-Balance Problems F&R-5 Play First to 100	R: PS-5 Explore Pan Balances Enrich: PS-1; PS-4; PS-5 Solve a Penny Riddle Ex.P: PS-5 Weighting Pennies
10.2	PS-3	7 th F&R-5	7 th F&R-5	7 th F&R-5 Demonstrate How to Solve More Complex Pan-Balance Problems 7 th F&R-5 Solving Pan Balance Problems S&P-1; S&P-2 Read and Make Line Graphs.	R: PS-3 Solve Logic Puzzles. Enrichment: PS-4 Measuring Time
10.3	F&R-1	S&P-1	F&R-5	F&R-2 Introduce Algebraic Expressions F&R-2 Write Algebraic Expression F&R-2 Express a Rule as an Algebraic Expression E&C-2 Play <i>Name That Number</i> .	R: F&R-1 Explore “What’s My rule?” Tables Ex.P: F&R-5 Write Algebraic Expressions
10.4	E&C-2	PS-3	G-8	S&P-1 Display a Rate of Speed S&P-1 Make Line Graphs from Tables of Values S&P-1 Compare Three Ways of Representing Rates	Enrich: S&P-1 Solve Rate Problems Ex.P: S&P-1 Graph “What’s My Rule?” Tables
10.5	M-3	F&R-2	6 th F&R-5	S&P-2; S&P-4 Predict When Old Faithful Will Erupt Next 7 th F&R-5 Solve Pan-Balance Problems	Enrich: S&P-1 Graph Values from a Table Ex.P: S&P-1 5-MM
10.6	M-4	G-8	S&P-2	F&R – 3 Solve Footrace Problem G-8; S&P -1 Graph the Footrace Data. N-5 Play <i>Mixed-Number Spin or Fraction Spin</i>	R: S&P-2 Interpret Table Data for Graphs Enrich: S&P1; G-8 Graph Race Results
10.7	E&C-1	S&P-2	S&P-2	S&P-2 Reading Graphs S&P-2 Reading Mystery Graphs F&R-5 Play First to 100.	R: S&P-2 Exploring Silhouettes R: S&P-2 Find Graph Errors Enrich: S&P-1 Make Tables from Graphs Ex.P: S&P-3 5-MM

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10.8	N-1	G-6	G-6	<p>G-7 Review the Meanings of Diameter and Radius. G-7 Introduce the Circumference Investigation G-7 Investigate Circumference 7th S&P-2 Make a Stem-and-Leaf Plot G-7 Discussing Pi Converting between systems not in GLE's through 8th.</p>	<p>R: G-7 Read about Circumference Enrich: G-7 Pass Your body through an Index Card</p>
10.9	E&C-1	G-7	F&R-5	<p>6th G-8 Explore the Relationship between Radius and Area 6th G-8 Use a formula to find the Area of a Circle. F&R-5 Play <i>First to 100</i></p>	<p>Enrich: 6th G-8 Model πr^2 Ex.P: G-7; 6th G-8 Calculate the Circumference and Area of Circles</p>


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Unit 11					
Lesson	MM&R	Math Mess		Lesson parts 1 & 2	Lesson part 3
11.1	8 th N-4	G-1	G-2	G-2 Explore Characteristics of Geometric Solids G-2 Investigate Regular Polyhedrons	Enrich: G-2 Compare the Faces, Vertices, and Edges of Polyhedrons Ex.P: G-2 Build Models for Geometric Solids
11.2	N-1	7 th G-2	G-2	G-2 Compare Geometric Solids G-2 Play <i>3-D Shape Sort</i>	R: G-2; PS-5 Explore a 2-Dimensional World Enrich: G-2; PS-4 Explore Truncated Polyhedrons
11.3	E&C-1	8 th G-8		8 th G-6 Introduce and Verify the Cylinder Volume Formula 8 th G-6 Find the Volume of Prisms and Cylinders N-3; E&C-4 Practice with Mental Multip.	R: 8 th G-6 Compare Volume of Cylinders Enrich: 8 th G-6 Calculate volume for Cylinders. Ex.P: G-2 5-MM
11.4	PS-3	PS-3	N-4	8 th G-6 Explore the Relationship between the Volumes of Prisms and Pyramids 8 th G-4 Explore the Relationship between the Volumes of Cylinders and Cones 8 th G-4; G-6 Solve Volume Problems G-7 Play <i>Tugs and Fences</i>	R: G-7 Find the Area of Concentric Circles Enrich: G-7; PS-3; PS-4 Measuring Regions Ex.P: G-2 5-MM
11.5	6 th N-6		6 th N-6	PS-5 Calibrating a Bottle PS-5 Demonstrate a Displacement Method for Finding the Volume of an Irregular Object. PS-5 Use a Calibrated Bottle to Measure the Volumes of Various Objects. PS-5 Solve American Tour Problems	R: PS-5 Read about Displacement Enrich: PS-5 Find Volume by Displacement

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11.6	7 th E&C-4	M-2	E&C-3	7 th E&C-4 Solve Problems Involving Units of Weight and Capacity. PS-5 Investigate the Capacity of the Annual Rice Consumption for a Thai Family of Four E&C-3 Play <i>Name That Number</i>	R: 6 th M-2 Explore Capacity and Weight Equivalencies. Ex.P: 6 th M-2 Find Equivalent Measures
11.7	N-1	7 th G-7	G-6; G-7	8 th G-7 Find the Surface Area of a Can 8 th G-7 Find the Surface Area of a Prism and a Pyramid.	Enrich: PS-3 Find the Smallest Surface Area for a Given Volume. Ex.P: 6 th G-9 7 th G-6 Find the Volume and Surface area of Solids.

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Unit 12					
Lesson	MM&R	Math Mess		Lesson parts 1 & 2	Lesson part 3
12.1	N-5	N-10	N-10	6 th N-9 Find Greatest Common Factors 6 th N-9 Find Least Common Multiples N-10 Play <i>Factor Captor</i>	R: N-10 Making Factor Rainbows Enrich: 8 th N-9 Use a Division Method for Prime Factorizations Ex.P: N-10 Use Factor Trees to Find Common Denominators
12.2	S&P-4	S&P-4	S&P-4	S&P-4 Introduce the Multiplication Counting Principle and Tree Diagrams S&P-4 Solve Probability Problems F&R-1 Solve Number Stories	R: S&P-4 Explore Chance and Probability Enrich: S&P-4 Read about Probability Ex.P: S&P-4 5-MM
12.3	7 th N-4	Ratios not in GLE's	7 th N-4	Ratios not mentioned in GLE's. F&R-5 Play <i>First to 100</i>	R: S&P-2 Reading a Pictograph Enrich: Ratios
12.4	N-4		N-4	N-4 Solving Ratio Problems (fractions of a group) N-4 Solving Ratio Problems (frac. of set) S&P-4 Calculating Choices	R: N-5 Write Ratios in Simplest Form Enrich: N-4 using Ratios to Compare
12.5	N-5	N-4	E&C-4	N-4 Introducing Number Models for Ratio Number Stories (frac. of sets) N-5 Solving Ratio Number Stories (equiv. fractions) 7 th M-1 Naming Angle Measures	Enrich: N-5 Introducing Cross Multiplication for Solving Ratio Problems Ex.P: N-4 Solving Ratio Number Stories
12.6	N-1	PS-5	Ratios	PS-5; S&P-1 finding Heart Rates 7 th N-4 Play <i>Spoon Scramble</i>	R: N-4 7 th N-4 Expressing Ratios (frac/dec/%) Enrich: F&R-1 Calculate Hearbeats
12.7	E&C-1	F&R-1 PS-3	E&C-1	S&P-1; PS-5 Record Heart Rates after Exercise S&P-1 Make a Persona Heart-Rate Profile S&P-1 Construct Side-by-Side Line Plots S&P-2 Compare Line Plots S&P-2 Making a Class Profile F&R – 5 Solve Pan-Balance Problems	R: S&P-1 Make Line Plots Enrich: S&P-1 Collect Data Ex.P: S&P-3 5-MM

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12.8	F&R-5	6 th PS-2	G-8	PS-5; Calculate Cardiac Output PS-1 compare Cardiac Output at Rest and After Exercising. G-8 Play <i>Ccoordinate Search</i>	Enrich: N-4 Read About Ratios EX.P: PS-1 N-4 solve Ratio Problems.
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GLE	MM&R	MM	P 1&2	P 3	TOTAL	Higher Grade Level GLE's
N-1	5			1	6	101
N-2	9	2	5	5	21	
N-3	3		6	3	12	
N-4		10	10	10	30	
N-5	9	1	13	9	32	
N-6		4	5	3	12	
N-7		1	8	2	11	
N-8		2	5		7	
N-9			1	1	2	
N-10	4	6	17	9	36	
M-1		1		1	2	5
M-2		1		2	3	
M-3	3	1		4	8	
M-4	1			1	2	
M-5						

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M-6						
M-7						
M-8			5	4	9	
E&C-1	12	2	9	7	30	27
E&C-2	20	2	11	7	34	
E&C-3		3	11	3	17	
E&C-4		3	15	11	29	
	MM&R	MM	P 1&2	P 3	TOTAL	Higher Grade Level GLE's
F&R-1		2	1	5	8	7
F&R-2	2	1	3	2	8	
F&R-3						
F&R-4	1				8	
F&R-5	1		10	5	16	
G-1	1	2	6	6	15	48
G-2	1		4	7	12	
G-3	1		2		3	

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G-4			4	1	5	
G-5			3	2	5	
G-6	1	1	6	4	12	
G-7		1	5	5	11	
G-8		3	4	2	9	
G-9	1			3	4	
S&P-1		5	22	11	38	13
S&P-2		4	16	7	27	
S&P-3		2	3	5	10	
S&P-4	1	3	6	5	15	
S&P-5	Thrid Grade EDM					
PS-1		1	2	5	8	
PS-2			1	4	5	
PS-3	3	10	11	13	37	
PS-4		1	2	6	9	
PS-5		9	21	18	48	