## 4th Grade Challenge Math Curriculum (updated 2020)

## Unit 1-Naming and Constructing Geometric Figures

EM Lesson Unit 1	Vocabulary	Games	Enrichments	Copies
1.1 Intro to SRB		Top-I†	Symbols Scavenger Hunt Math Partners Sheet	Enrichment MM 7 Math Partners Sheet
1.2 Points, Line Segments, Lines and Rays	Point, line segment, end point, line, ray	Addition Top-It Sprouts** (Optional)	Collinear Point Puzzles	Enrichment MM 10 SL MM 8
1.3 Angles, Triangles, and Quadrangles	Angle vertex, right angle, triangle, quadrangle, quadrilateral, square, rhombus, parallelogram, trapezoid, kite		Polygon Search	Enrichment MM 13 SL MM 11
1.4 Parallelograms	Parallel lines, intersect, parallel rays, perpendicular line segments	Subtraction Top-It Sz'kwa**	Straw Square Puzzle (Optional)	Enrichment MM 505 (Sz'kwa) Enrichment MM 17 (1/2 sheet) MM 14 SL MM 15
QUIZ 1.1-1.4				Quiz 1.1-1.4
1.5 Polygons	Side, angle, polygon, vertex, convex, non-concave,		Complex Venn Diagram What is a Kite/Rhombus? Convex/Concave Human Polygons with String (Optional)	Complex Venn Diagram (Scan) Enrichment MM 21-22 (B2B) SL MM 18

	concave, hexagon, heptagon, octagon, nonogon,			
1.6 Drawing Circles with a Compass	Compass, circle, inscribed square, center of a circle	Polygon Pair-Up**	A Crowded Points Puzzle	SL MM 23 MM 24 MM 496-497 (Polygon Pair-Up)
1.7 Circle Constructions		Polygon Pair-Up	Creating Large Circles with Chalk and String (Optional) Drawing Tangent Circles (MM 27-28) Radius, Chords, and Diameter	MM 27-28 Enrichment MM 29
1.8 Hexagon and Triangle Constructions			Creating 6-Point Designs (Optional) (MM 32)	
QUIZ 1.5-1.8 UNIT 1 REVIEW UNIT 1 TEST				Quiz 1.5-1.8 Unit 1 Review Unit 1 Test

### Unit 1 Games

\*\* Denotes initial introduction of the game.

Order 200 copies of each game board.

### Additional Activities:

Introduction to Problem Solving Strategies

Math Quest-Practice C and Additional Problems (Do anytime throughout the year.)

Weekly CMLs

Math Notebooks

# Unit 2- Using Numbers and Organizing Data

EM Lesson Unit 2	Vocabulary	Games	Enrichments	Copies
2.1 A Visit to Washington DC		Polygon Pair-Up	Missing Numbers on a Number Line	Enrichment MM 41
2.2 Many Names for Numbers	Equivalent name, name collection box	Name That Number	Pan-Balanced Problems	Enrichment MM 44 SL MM 42
2.3 Place Value in Whole Numbers	Counting number, whole number, digit, place, expanded notation			SL MM 45
2.4 Place Value with a calculator		Fishing for Digits**	Crack the Muffin Code	Enrichment MM 50 SL MM 48 MM 472 Fishing for Digits (1/2 sheet)
2.5 Organizing and Displaying Data	Guess, estimate, tally chart, landmark, maximum, minimum, range, mode	Addition Top-It		SL MM 51
2.6 The Median	Line plot, mean	Subtraction Top-It	Data Landmark Chants	SL MM 54
QUIZ 2.1-2.6				Quiz 2.1-2.6
2.7 Addition of Multi-digit Numbers	Partial-sums method, column	High Number Toss**		SL MM 57-58

	addition method, ballpark estimate			
2.8 Displaying Data with Graphs	Bar graph		Measuring and Drawing Line Segments "One Size Fits All" Claim (Optional)	MM 60 Enrichment MM 63 MJ 47A, 47B SL MM 61
2.9 Subtraction of Multi-digit Numbers (2 Day Lesson)	Trade-first method, partial-differences method	Subtraction Target Practice**	Number Tile Problems	Enrichment MM 67 SL MM 65
QUIZ 2.7-2.9 UNIT 2 REVIEW UNIT 2 TEST				Quiz 2.7-2.9 Unit 2 Review Unit 2 Test

## Unit 2 Games:

\*\* Denotes initial introduction of the game.

Order 200 copies of each game board.

### Problem Driven Math 6-8:

3,48

#### Additional Activities:

Math Quest-Practice  $\mathcal C$  and Additional Problems (Do anytime throughout the year.)

Weekly CMLs

Math Notebooks

Unit 3- Multiplication and Division; Number Sentences and Algebra

EM Lesson Unit 3	Vocabulary	Games	<b>Enrichments</b>	Copies
3.1 "What's My Rule?"	Input, output, rule			SL MM 72
3.2 Multiplication Facts	Multiplication facts, factors, products, factor pair, multiples, square numbers, turn-around facts, prime number, composite number	Name That Number Buzz and Bizz Buzz**	Prime Numbers	Enrichment MM 77 MJ 56 (NEW EDITION) SL MM 75
3.3 Multiplication Fact Practice	Percent	Baseball Multiplication Multiplication Top-It	Calculating Combinations	Enrichment MM 80 MM 460 (Multi. Baseball) SL MM 78
3.4 More Multiplication Fact Practice	Dividend, divisor, quotient, remainder, fact family		Compare the Mean and Median	Enrichment MM 84 SL MM 82
QUIZ 3.1-3.4				Quiz 3.1-3.4
3.5 Multiplication and Division		Beat the Calculator	Fractions and Division (MM 86-Do on the Smart Board.)	SL MM 85
3.6 World Tour: Fly to Africa		Seega**		Enrichment MM 503 (Seega) MJ 63A, 63B SL MM 87
3.7 Finding Air Distances		Polygon Pair-Up	Compare Map Scales	Enrichment MM 90 SI MM 88
3.8 A Guide for Solving Number Stories		High Number Toss	Writing Number Stories	Enrichment MM 93 SL MM 91

3.9 True or False Number Sentences	Number sentence, true number sentence, false number sentence		A Number Sentence Puzzle (Optional)	Enrichment MM 96 (Optional) SL MM 94
QUIZ 3.5-3.9				Quiz 3.5-3.9
3.10 Parentheses in Number Sentences	Parenthesis	Name That Number	Order of Operations Poster Number Models with Parentheses (MM 98- Do on the Smart Board.)	SL MM 97
3.11 Open Sentences	Variable, open sentence, solve, solution		Solve Open Sentences	Enrichment MM 101 (1/2 sheet) SL MM 99
QUIZ 3.10-3.11 UNIT 3 REVIEW UNIT 3 TEST				Quiz 3.10-3.11 Unit 3 Review Unit 3 Test

## Unit 3 Games:

\*\* Denotes initial introduction of the game. Order 200 copies of each game board.

### Problem Driven Math 6-8:

69

### Additional Activities:

Math Quest- Practice  $\mathcal C$  and Additional Problems (Do anytime throughout the year.)  $\mathcal CMLs$ 

Math Notebooks

## Unit 4- Decimals and Their Uses

EM Lesson Unit 4	Vocabulary	Games	Enrichments	Copies
4.1 Decimal Place Value	One, whole, unit, tenth, hundredth	Polygon Pair-Up		SL MM 108
4.2 Review of Basic Decimal Concepts	decimal	Baseball Multiplication		
4.3 Comparing and Ordering Decimals	Trip meter, speedometer	Product Pile-Up**		SL MM 112
4.4 Estimating with Decimals		Number Top-I† Decimals**	Decimal Magic Square	Enrichment MM 117 (1/2 sheet) SL MM 113
4.5 Decimal Addition and Subtraction			A Hiking Trail	Enrichment MM 120-121 (B2B) SL MM 119
QUIZ 4.1-4.5				Quiz 4.1-4.5
4.6 Decimals in Money	Deposit, withdrawal, balance, interest	Name That Number	Goodie Bags	Enrichment MM 124 SL MM 123
4.7 Thousandths	thousandth		Batting Averages	Enrichment MM 127 SL MM126 MM 125
4.8 Metric Units of Length	Centimeter, meter, millimeter, decimeter	Fishing for Digits	Metric Prefixes (MM 130-Do on the Smart Board.)	SL MM 128
4.9 Personal References for Metric Length	Personal measurement reference			SL MM 131
4.10 Measuring in Millimeters				SL MM 133
QUIZ 4.6-4.10 UNIT 4 REVIEW UNIT 4 TEST				Quiz 4.6-4.10 Unit 4 Review Unit 4 Test

### Unit 4 Games:

\*\* Denotes initial introduction of the game. Order 200 copies of each game board.

### Problem Driven Math 6-8:

22, 24, 33, 34, 59

#### Additional Activities:

Math Quest- Practice C and Additional Problems (Do anytime throughout the year.)

CMLs

Math Notebooks

Perplexors (Optional)

## Unit 5- Big Numbers, Estimation, and Computation

EM Lesson Unit 5	Vocabulary	Games	Enrichments	Copies
5.1 Extended Multiplication Facts	Extended multiplication facts	Beat the Calculator Multiplication Top-It		MM 430 SL MM 139
5.2 Multiplication Wrestling		Multiplication Wrestling**	A Multiplication Wrestling Competition	Enrichment MM 142 MM 488 (Mult. Wrestling) SL MM 140
5.3 Estimating Sums	Estimation, round	Product Pile-Up		SL MM 144
5.4 Estimating Products	Rough estimate, magnitude estimate	Multiplication Wrestling	Missing Numbers and Digits	Enrichment MM 150 SL MM 148
5.5 Partial Product Multiplication (1)	Partial-products method		An Old Puzzle (MM 153- Do on the Smart Board.)	SL MM 151
5.6 Partial Product Multiplication (2)		Name That Number	A Dart Game Sorting Numbers	Enrichment MM 155 (1/2 Sheet) Enrichment MM 156 SL MM 154
QUIZ 5.1-5.6				Quiz 5.1-5.6
5.7 Lattice Multiplication	Lattice	Multiplication Top-It		SL MM 157
5.8 Big Numbers	Million, billion	High Number Toss	How Much is a Million by David M. Schwartz (MM 165- Do on the Smart Board.)	SL MM 163
5.9 Powers of 10	Scientific notation, trillion, quadrillion, quintillion, sextillion, powers of 10, exponent	Polygon Pair-Up	Powers of 10 task cards (optional)	SL MM 167

5.10 Rounding and Reporting Large Numbers	rounding		SL MM 169
5.11 Comparing Data		High Number Toss Number Top-It	SL MM 172 MJ 134A, 134B
QUIZ 5.1-5.6 UNIT 5 REVIEW UNIT 5 TEST			Quiz 5.1-5.6 Unit 5 Review Unit 5 Test

### Unit 5 Games:

\*\* Denotes initial introduction of the game.

Order 200 copies of each game board.

### Problem Driven Math 6-8:

37

#### Additional Activities:

Math Quest-Practice C and Additional Problems (Do anytime throughout the year.)

**CMLs** 

Math Notebooks

# Unit 6- Division; Map Reference Frames; Measures of Angles

EM Lesson Unit 6	Vocabulary	Games	Enrichments	Copies
6.1 Multiplication Number Stories	Multiplication/Division diagram			SL MM 177
6.2 Strategies for Division	Equal groups, *Quotient, remainder	High Number Toss Buzz and Bizz Buzz		SL MM 178
6.3 Partial-Quotients Division Algorithm (1) (2-Day Lesson/address number models with vaiables)	*Dividend, * divisor, partial quotient	Beat the Calculator Division Dash**	A Pen Riddle	Enrichment MM 181 (1/2 sheet) SL MM 180 MM 471 (Division Dash- $\frac{1}{2}$ sheet)
6.4 Expressing and Interpreting Remainders	*mixed number	Division Dash	Multiples Number Story	Enrichment MM 184 (1/2 sheet) SL MM 182
QUIZ 6.1-6.4				Quiz 6.1-6.4
6.5 Rotations and Angles	Rotation, turn, clockwise, degree, right angle			SL MM 185 MJ 154A, 154B
6.6 Using a Full Circle Protractor	Angle, sides, * vertex, clockwise rotation, counter-clockwise rotation, full circle protractor	Division Dash Angle Tangle** Angle Add-Up** (MM 507-508 Do on the Smart Board.)		SL MM 190 MM 547 (Angle Tangle) MM 509 (Angle Add-Up)
6.7 The Half Circle Protractor (2 Day Lesson)	*acute angle, *obtuse angle, *relfex angle, *straight angle, half circle protractor, baseline		Types of Triangles Review	SL MM 192

6.8 Rectangular Coordinate Grids for Maps	Index of locations, letter number pair, ordered pair, map scale, Meridian bars, parallels, longitude	Angle Tangle Grid Search**	Graffiti Positive/Negative Coordinate Graph	Graffiti Art (Scan) SL MM 194 MM 486 (Grid Search)
6.9 Global Coordinate Grid System	Sphere, north pole, south pole, axis, equator, prime meridian, hemisphere, latitude	Over and Up Squares**		MM 494 (Over and Up Squares) SL MM 195
6.10 The Partial-Quotients Division Algorithm (2) (2-Day Lesson)		Division Dash	Division Magic (MM 198- Do on the Smart Board.)	SL MM 197
QUIZ 6.5-6.10 FINAL UNIT 6 QUIZ UNIT 6 REVIEW UNIT 6 TEST				Quiz 6.5-6.10 Final Unit 6 Quiz Unit 6 Review Unit 6 Test

### Unit 6 Games:

\*\* Denotes initial introduction of the game.

Order 200 copies of each game board.

### Problem Driven Math 6-8:

51

## Additional Activities:

Math Quest-Practice C and Additional Problems (Do anytime throughout the year.)

**CMLs** 

Math Notebooks

Perplexors (Optional)

Hands-On Equations (Optional)

Clockwise (Optional)

# Unit 7- Fractions and Their Uses; Chance and Probability

EM Lesson Unit 7 Vocabulary Games Enrichments Copies

7.1 Review of Basic Whole number, mixed Product Pile-Up Naming Fractional Parts SL MM 20

7.1 Review of Basic Fraction Concepts	Whole number, mixed number, denominator, numerator	Product Pile-Up	Naming Fractional Parts of a Region (MM 206- Do on the Smart Board.)	SL MM 203
7.2 Fractions of Sets		Fraction Of**	Hiking Trails	Enrichment MM 208 SL MM 207 MM 479 (Fraction Of)
7.3 Probabilities When Outcomes are Equally Likely	Equally likely, outcome, event, probablity	Fraction Of Grab Bag**	A Playing Card Experiment	Enrichment MM 211 SL MM 207 MM 485 (1/2 Sheet/ Grab Bag)
7.4 Pattern Block Fractions			Exploring Tangrams	Enrichment MM 215 &441 SL MM 213
QUIZ 7.1-7.4				Quiz 7.1-7.4
7.5 Fraction Addition and Subtraction		Angle Tangle Fraction dice (optional)		SL MM 216 MJ 198A, 198B
7.6 Many Names for Fractions		Fraction Match**	Equivalent Clock Fractions	SL MM 218 Enrichment MM 222 MJ 200A
7.7 Equivalent Fractions	Equivalent fractions, fractions rule	Fraction Match		SL MM 223 MJ 200B
7.8 Fractions and Decimals			Fraction, Decimal, and Percent Grids	Enrichment MM 227 SL MM 226
7.9 Comparing Fractions		Over and Up Squares Angle Add-Up Fraction Top-It	Two-Digit Fractions (MM 230- Do on the Smart Board.)	SL MM 228
QUIZ 7.5-7.9				Quiz 7.5-7.9
7.10 The ONE for fractions		Fraction Top-It Getting to One**	A Whole Candy Bar (MM-232- Do on the Smart Board.)	SL MM 231 MJ 209A, 209B

7.11 Probability, Fractions, and Spinners	Fair, equal chance, equally likely	Chances Are**	MM 233 SL MM 234 SL MM 235-236 (B2B and order separately)
7.12 A Cube-Drop Experiment			SL MM 239
7.12A Multiplying Fractions By Whole Numbers	Multiple, equation		SL MM 242A MJ 217A, 217B, 217C, 217D, 217E
QUIZ 7.10-7.12 UNIT 7 REVIEW UNIT 7 TEST			Quiz 7.10-7.12 Unit 7 Review Unit 7 Test

#### Unit 7 Games:

 $\star\star$  Denotes initial introduction of the game.

Order 200 copies of each game board.

## Problem Driven Math 6-8:

44, 49, 65

### Additional Activities:

Math Quest-Practice C and Additional Problems (Do anytime throughout the year.)

**CMLs** 

Math Notebooks

**Amusement Parks** 

Perplexors (Optional)

Hands-On Equations (Optional)

Clockwise (Optional)

## Unit 8- Perimeter and Area

EM Lesson Unit 8	Vocabulary	Games	Enrichments	Copies
8.1 Kitchen Layouts and Perimeter	Work triangle, *perimeter	Fraction Match		SL MM 247
8.2 Scale Drawings	Scale drawing, scale			SL MM 250 MJ 226A, 226B
8.3 Area	*area, square units	Fraction Top-It		SL MM 254
8.4 What is the Area of My Skin				SL MM 255
8.5 Formula for the Area of a Rectangle	Length, base, width, height, area, formula, variable		The Tennis Court	Enrichment MM 258 SL MM 256
QUIZ 8.1-8.5				Quiz 8.1-8.5
8.6 Formula for the Area of a Parallelogram (2-Day Lesson)	Base, height, perpendicular	Fraction Of Angle Add Up	Perimeter and Area	Enrichment MM 263, 264, 437 SL MM 261 MM 260
8.7 Formula for the Area of a Triangle (2-Day Lesson)	*Equilateral triangle, *isosceles triangle, * scalene triangle, * right triangle, base, height	Rugs and Fences**	Area and Perimeter	Enrichment MM 268 SL MM 266 MM 265 MM 502 (Rugs and Fences)
8.8 Geographical Area Measurement		Grab Bag	Similar Figures	Enrichment MM 272-273 (B2B) SL MM 269
QUIZ 8.6-8.8 UNIT 8 REVIEW UNIT 8 TEST				Quiz 8.6-8.8 Unit 8 Review Unit 8 Test

#### Unit 8 Games:

\*\* Denotes initial introduction of the game. Order 200 copies of each game board.

#### Problem Driven Math 6-8:

8, 21, 23, 39, 53, 54, 66, 70, 62

#### Additional Activities:

Math Quest-Practice C and Additional Problems (Do anytime throughout the year.)

**CMLs** 

Math Notebooks

Perplexors (Optional)

Footloose Game

Extreme Backyard Make-Over (Optional)

Hands-On Equations (Optional)

## Unit 9- Fractions, Decimals, and Percents

EM Lesson Unit 9	Vocabulary	Games	<b>Enrichments</b>	Copies
9.1 Fractions, Decimal and Percents	percent, 100% box	Fraction Match		SL MM 279
9.2 Converting "Easy" Fractions to Decimal		Rugs and Fences		SL MM 282
9.3 Using a Calculator to Convert Fractions to Decimals	Terminating decimal, repeating decimal	Fraction/Percent Concentration**	Finding Decimals Close to "Easy" Fractions (Do on white boards.)	SL MM 284
9.4 Using a Calculator to Rename Fractions as Percents	Regular price, % of discount, list price, discount, fraction of discount, sale price, discounted price		Discount Number Stories	Enrichment MM 287 SL MM 285
9.5 Conversions among Fractions, Decimals, and Percents				SL MM 288 MJ 260A, 260B
QUIZ 9.1-9.5				Quiz 9.1-9.5
9.6 Comparing the Results of a Survey			Graphing Survey Results (Review parts of a graph prior to doing the activity.)	SL MM 291 MJ 261A, 261B
9.7 Comparing Population Data (2-Day Lesson)	Urban, rural, life expectancy, rank			MM 293 (order double) SL MM 294
9.8 Multiplication of Decimals		Over and Up Squares	Comparing Products (Do on the Smart Board.)	SL MM 296
9.9 Division of Decimals (2-Day Lesson)		Polygon Pair-Up		SL MM 298

QUIZ 9.6-9.9			Quiz 9.6-9.9
FINAL UNIT 9 QUI	Z		Final Unit 9 Quiz
UNIT 9 REVIEW			Unit 9 Review
UNIT 9 TEST			Unit 9 Test

#### Unit 9 Games:

\*\* Denotes initial introduction of the game. Order 200 copies of each game board.

### Problem Driven Math 6-8:

1, 7, 12

#### Additional Activities:

Math Quest- Practice  ${\it C}$  and Additional Problems (Do anytime throughout the year.)

**CMLs** 

Math Notebooks

Perplexors (Optional)

If the World Were a Village by David Smith (You Tube video)

Clockulator (Optional)

# Unit 10 Reflection and Symmetry

EM Lesson Unit 10	Vocabulary	Games	<b>Enrichments</b>	Copies
10.1 Explorations with a Transparent Mirror	Congruent, transparent mirror, recessed, image, pre-image	Over and Up Squares		MM 304-305 MJ 275A, 275B SL MM 306
10.2 Finding Lines of Reflection	Reflection, line of reflection	The Dart Game Pocket Billiards Game Angle Tangle	Paper-Folding Puzzles	Enrichment MM 308 SL MM 307
10.3 Properties of Reflection	Line of reflection			MM 309 SL MM 310 MJ 277A, 277B
QUIZ 10.1-10.3				Quiz 10.1-10.3
10.4 Line Symmetry	Line of symmetry, symmetric, rotation (turn), symmetry		Interpreting a Cartoon (MM 316- Do on the Smart Board.)	MM 311-312 (B2B) MM 313 MM 314 MJ 280A, 280B SL MM 315
10.5 Frieze Patterns	Frieze pattern, reflection (flip), translation (slide, rotation (turn)	Polygon Pair-Up	Entrapment (optional) Transformation sort (optional)	SL MM 318
10.6 Positive and Negative Numbers	Opposite, credit, debit	Credits/Debits Game**		MM 320 (1/2 sheets) MM 321 SL MM 322 MM 468 (Credits/Debits Game)
QUIZ 10.4-10.6 UNIT 10 REVIEW UNIT 10 TEST				Quiz 10.4-10.6 Unit 10 Review Unit 10 Test

#### Unit 10 Games:

\*\* Denotes initial introduction of the game. Order 200 copies of each game board.

### Problem Driven Math 6-8:

(none)

#### Additional Activities:

Math Quest-Practice C and Additional Problems (Do anytime throughout the year.)

**CMLs** 

Math Notebooks

Perplexors (Optional)

Transformation Sort Game

Flip, Slide, Turn Packet

Shopping Spree (Optional)

Entrapment Game (Optional)

# Unit 11 3-D Shapes, Weight, Volume, and Capacity

EM Lesson Unit 11	Vocabulary	Games	Enrichments	Copies
11.1 Weight	Gram, ounce			SL MM 327
11.2 Geometric Solids	Geometric solid, rectangular prism, cylinder, triangular prism, cone, sphere, square pyramid, face, congruent, curved, surface, edge, vertex, cube, flat surface		Exploring Euler's Polyhedral Formula (Do on the Smart Board.)	SL MM 328
11.3 Constructing a Geometric Solid	Pyramid prism, polyhedron, regular polyhedron, triangular pyramid, tetrahedron, dodecahedron		Creating Cube Nets	Enrichment MM 444 MJ 295A, 295B SL MM 329
QUIZ 11.1-11.3				Quiz 11.1-11.3
11.4 A Volume Exploration	Cubic units, volume, dimension, surface area	Credits/Debits Game	Exploring Penticubes	SL MM 330 (single sided)
11.5 A Formula for the Volume of Rectangular Prisms	Rectangular prism, volume, formula			SL MM 331
11.6 Subtraction of Positive and Negative Numbers		Credits/Debits Game (Advanced Version)**		MM 321 SL MM 333 MM 469 (Credits/Debits Advanced Version) Positive/Negative Number Addition and Subtraction Packet

11.7 Capacity and Weight	Cup, pint, quart, gallon, capacity, liter, milliliter		Capacity and Weight Packet MJ 305A, 305B
QUIZ 11.4-11.7 UNIT 11 REVIEW UNIT 11 TEST			Quiz 11.4-11.7 Unit 11 Review Unit 11 Test

#### Unit 11 Games:

\*\* Denotes initial introduction of the game. Order 200 copies of each game board.

### Problem Driven Math 6-8:

70

#### Additional Activities:

Math Quest-Practice C and Additional Problems (Do anytime throughout the year.)

**CMLs** 

Math Notebooks

Perplexors (Optional)

Cube Nets (Teachers Pay Teachers)

Shopping Spree (Optional)

Math Analogies

I Have...Who Has? (Geometry)

Polygon Jeopardy

## Unit 12 Rates

EM Lesson Unit 12	Vocabulary	Games	<b>Enrichments</b>	Copies
12.1 Introduction to Rates	Rate, per		Creating Side-By-Side Bar Graphs	Enrichment MM 403
12.2 Solving Rate Problems	Rate table, unit rate	Credits/Debits Game Advanced Version	Representing Rates with Line Graphs	Enrichment MM 403 SL MM 341
12.3 Converting between Rates			Mammal 100-Yard Dash	Enrichment MM 343-344 (B2B) SL MM 342
QUIZ 12.1-12.3				Quiz 12.1-12.3
12.4 Comparison Shopping (1)	Consumer, products, services, comparison shopper, unit price	Name That Number		SL MM 345 MJ 319A, 319B
12.5 Comparison Shopping (2)		Fraction Top-It		SL MM 347 MJ 322A, 322B
QUIZ 12.4-12.5				Quiz 12.4-12.5
12.6 World Tour and 50 Fact Test Wrap-Up				SL MM 352
QUIZ 12.6-12.7 UNIT 12 REVIEW UNIT 12 TEST				Quiz 12.6-12.7 Unit 12 Review Unit 12 Test

#### Unit 12 Games:

\*\* Denotes initial introduction of the game. Order 200 copies of each game board.

### Problem Driven Math 6-8:

(none)

### Additional Activities:

Math Quest- Practice C and Additional Problems (Do anytime throughout the year.)
CMLs
Math Notebooks
Perplexors (Optional)
Shopping Spree (Optional)