Trainig Topic	Materials	Week		KEMS/KEAS Lesson	KEMS Pages
Fact Masters- Addition	Copy of T901, Scissors, Colored Pencils, Gridded Index Cards, Beans, Cups	1	FM -Addition- Items and Items- Concrete	3- Appendix A	S293
		1	FM- Addition- Practice with Working Of Items and Items	3- Appendix A	S294
		1	FM- Addition- Practice with the Addition Symbol	3- Appendix A	S295
		1	FM- Addition- Practice with Addition Facts	3- Appendix A	S296
		1	FM- Addition- Pictorial (FM Curtain)	3- Appendix A	
Fact Masters- Subtraction	Copy of T939-T942, Scissors, Colored Pencils, Gridded Index Cards, Beans, Cups	1	FM -Subtraction- Items Minus Items- Concrete	3- Appendix B	S302
		1	FM- Subtraction- Practice with Wording Of Items Minus Items	3- Appendix B	S303
		1	FM- Subtraction- Practice with the Subtraction Symbol	3- Appendix B	S304
		1	FM- Subtraction- Practice with Subtraction Facts	3- Appendix B	S305
		1	FM- Subtraction- Pictorial (FM Curtain)	3- Appendix B	
Counting, Comparing, and Place Value (K-2)	Algebra Tiles, Counters, CM Cubes	1	Counting: Kindergarten to 2nd grade		
		1	Introduction to Place Value - Kindergarten		
		1	Understanding Place Value - 1st and 2nd Grade		
		1	Concepts of Comparison		
		1	Comparing Numbers: Kindergarten		
		1	Comparing Numbers: 1st and 2nd Grade		
Place Value and Comparing Numbers (3-5)	CM Cubes	1	Understanding Place Value - Concrete (Know the Progression from 2nd)	4- Lesson 5	S40
		1	Understanding Place Value - Pictorial	4- Lesson 5	S41-S42
		1	Expanded Form	4- Lesson 5	S43-S44
		1	Decimals as Fractions - Pictorial	5- Lesson 5	S37
		1	Write Decimals in Standard Form	5- Lesson 5	S38
		1	Decimal Expanded Form – Through Thousandths	5- Lesson 5	S39-S40
		1	Expanded Form to Number Form	5- Lesson 5	S41
		1	Comparing Multi-Digit Numbers	4- Lesson 5	S45-S46
		1	Comparing Decimals in a Place Value Chart	5- Lesson 6	S46-S47
		1	Comparing Decimals	5- Lesson 6	S51
Addition Progressions Elementary	Algebra Tiles, CM Cubes, Colored Pencils	1	Add within 100 – Hundreds Chart – Concrete to Pictorial		
		1	Add within 100 – Open Number Line		
		1	Add within 100 and 1,000 – Place Value Mat – Concrete		
		1	Add within 100 – Place Value Mat – Pictorial		
		1	Adding Whole Numbers – Double–Digit Concrete	4- Lesson 6	S51
		1	Adding Whole Numbers – Double–Digit Concrete to Pictorial	4- Lesson 6	S51
		1	Adding Whole Numbers – Double–Digit – Pictorial - Moving to Algorithm	4- Lesson 6	S51-S52
		1	Addition Algorithm	4- Lesson 6	S52
		1	Decimal Addition Models - Tenths	5- Lesson 9	S79
		1	Decimal Addition Models - Hundredths	5- Lesson 9	S80
		1	Add Decimals – Models and Graphic Organizers	5- Lesson 9	S81
		1	Add More Decimals – Through Hundredths with Regrouping	5- Lesson 9	S83
		1	Add Decimals – Abstract	5- Lesson 9	S84
Subtraction Progressions Elementary	Algebra Tiles, CM Cubes, Colored Pencils, Beans	1	Subtract within 100 – Hundreds Chart – Concrete to Pictorial		
		1	Subtract within 100 and 1,000– Open Number Line		
		1	Subtract within 100 and 1,000– Place Value Mat – Concrete		
		1	Subtract within 100 and 1,000– Place Value Mat – Pictorial		
		1	Subtracting Whole Numbers – Double-Digit – Concrete to Pictorial to Abst	4- Lesson 6	S57
		1	Subtracting Whole Numbers – Multi-Digit – Pictorial to Abstract	4- Lesson 6	S58-S59
		1	Decimal Subtraction Models - Tenths	5- Lesson 10	S89
		1	Decimal Subtraction Models - Hundredths	5- Lesson 10	S90
		1	Subtract Decimals – Models and Graphic Organizers	5- Lesson 10	S91
		1	Subtract More Decimals – Through Hundredths with Regrouping	5- Lesson 10	S93
		1	Subtracting Decimals – Abstract	5- Lesson 10	S94
OA- Properties and Strategies- (K-2)	Two-Color Counters, Colored Pencils, CM Cubes	1	Operations and Algebraic Thinking: Connections and Progressions		
		1	Developing Mental Capacity through Operations and Algebraic Thinking		
		1	Addition and Subtraction Strategies		
		1	Properties of Addition		
		1	Addition and Subtraction Word Problem Types		
Progression of	Colored pencils, counters	1	Meaning of Equality		
		1	Exploring Equality		
		1	Equality in Addition and Subtraction		
		1	Foundations of Equality in Multiplication and Division		

Trainig Topic	Materials	Week		KEMS/KEAS Lesson	KEMS Pages
Progression of Equality- Elementary	counters, Multiplicative Comparison Pictures	1	Finding Unknowns in Multiplication and Division		
		1	Moving from Facts to Equations – Pictorial	3- Lesson 12	S113
		1	Equations - Moving to Abstract	3- Lesson 12	S115
		1	Equations – Abstract	3- Lesson 12	S116
		1	Multiplication and Division Word Problem Types		
		1	Unknown Numbers Activity		
Fact Masters- Multiplication	Copy of T210 T211, Scissors, Colored Pencis, Gridded Index Cards, Beans, Cups	1	FM- Multiplication- Concrete Modeling of Groups and Items	3- Lesson 8	S74
		1	FM- Multiplication- Practice with Working of Groups and Items	3- Lesson 8	S75
		1	FM- Multiplication- Practice with Multiplication Symbol	3- Lesson 8	S76
		1	FM- Multiplication- Practice with Multiplication Facts	3-Lesson 8	S77
		1	FM- Multiplication - Use Arrays (FM Curtain)	3-Lesson 8	
Fact Masters- Division	Copy of T285 T287, Scissors, Colored Pencils, Gridded Index Cards, Beans, Cups	1	FM- Division- Concrete Modeling of Total Items and Items	3-Lesson 10	S94
		1	FM- Division- Practice with Wording of Total Items and Items	3-Lesson 10	S95
		1	FM- Division- Practice with Division Symbol	3-Lesson 10	S96
		1	FM- Division- Practice with Division Facts	3-Lesson 10	S97
		1	FM- Division- Use Pictures (FM Curtain)	3-Lesson 10	
FM- Quiz, Recording Results, Choral Drill, Certificate		1	FM- Quiz (A and B), Recording Results		
		1	FM- Choral Drill		
		1	FM- Certificate		
Multiplicaiton Progression- Elementary	CM Cubes, Colored Pencils, Beans	1	Building Facts with Multiples of 10 – Concrete to Pictorial	3- Lesson 9	S83
		1	Building Facts with Multiples of 10 – Pictorial to Abstract	3- Lesson 9	S84
		1	Working with Arrays - Pictorial with the Distributive Property - Pictorial to	3- Lesson 9	S85
		1	Working with Arrays - Pictorial with the Associative Property - Pictorial to	3- Lesson 9	S86
		1	Working with Multiplication – Abstract	3- Lesson 9	S87
		1	Multiplying Whole Numbers with Property Application – Abstract	3- Lesson 9	S88
		1	Building Multiplication Arrays - Concrete to Pictorial	4- Lesson 7	S67
		1	Building Facts with Open Arrays - Pictorial	4- Lesson 7	S67
		1	Building Facts with Open Arrays – Pictorial – 3–digit by 1–digit and 2–digit	4- Lesson 7	S68-S69
		1	Open Arrays - Area Model - Pictorial with Properties	4- Lesson 7	S70-S71
		1	Working with Arrays in Area Models – Pictorial to Abstract	4- Lesson 7	S72-S73
		1	Working with Multiplication – Abstract	4- Lesson 7	S74
		1	Multiplying Whole Numbers with Property Application – Abstract	4- Lesson 7	S75-S76
		1	Building Facts with Arrays	5- Lesson 7	S60
		1	Area Model – Moving Toward the Algorithm	5- Lesson 7	S61-S63
		1	Multiplication Algorithm	5- Lesson 7	S61-S63
		1	Multiplication Algorithm – Multi-Digit	5- Lesson 7	S64-S65
Division Progressions Elementary	Algebra Tiles, CM Cubes, Colored Pencils	1	Working with Division facts – Abstract	4- Lesson 8	
		1	Multi-digit Division without Regrouping – Concrete to Pictorial		
		1	Multi-digit Division with Regrouping - Concrete		
		1	Multi-digit Division with Remainder - Concrete		
		1	Multi-digit Division – Open Array		
		1	Multi-digit Division - Partial Quotients		
		1	Division Word Problems – Interpreting Remainders		
Fraction Kits, Equivalence and a Number Line	Fraction Strips, Colored Pencils	1	Fraction Kit 1- 1 Whole, 1/2 Unit, 1/4 Unit, 1/8 Unit	5- Lesson 16	5- S151
		1	Fraction Kit 2- 1/3, 1/6, 1/9, 1/12	5- Lesson 16	
		1	Fraction Kit 3- 1/5, 1/10	5- Lesson 16	
		1	Legal Trades- Fraction Kits- 1- 3	5- Lesson 16	5- S156
		1	Fractions on a Number Line- Concrete to Pictorial	3- Lesson 17	3- S160
		1	Fractions on a Number Line- Pictorial	3- Lesson 17	3-161
		1	Equivalent Fractions- Concrete to Pictorial with Fraction Strips	3- Lesson 18	3- S167-S168
		1	Equivalent Fractions- Concrete to Pictorial with a Number Line	3- Lesson 18	3- S169
		1	Equivalent Fractions- Pictorial to Abstract	3- Lesson 18	3- S170
		1	Add Fractions- Like Denominators- Concrete	4-Lesson 16	S153-S154
		1	Add Fractions- Like Denominators- Move to Pictorial	4-Lesson 16	S155-S156
		1	Add Fractions- Like Denominators- Move to Abstract	4-Lesson 16	S157
		1	Subtract Fractions- Like Denominators- Concrete	4- Lesson 17	S163-S164
		1	Subtract Fractions- Like Denominators- Move to Pictorial	4- Lesson 17	S165-S166
		1	Subtract Fractions- Like Denominators- Move to Abstract	4- Lesson 17	S167
		1	Subtract Fractions- Like Denominators- Without Models	4- Lesson 17	S168
		1	Add Fractions- Concrete- Unlike Denonminators	5- Lesson 17	S161-S162

Trainig Topic	Materials	Week		KEMS/KEAS Lesson	KEMS Pages
Fraction- Addition and Subtraction- Like and Unlike Denominators	Fraction Strips, Colored Pencils	1	Add Unlike Fractions- Move to Pictorial- Rename one Addend	5- Lesson 17	S163
		1	Add Unlike Fractions- Move to Pictorial- Rename both Addends	5- Lesson 17	S164
		1	Subtract Fractions- Concrete- Unlike Denominators	6- Lesson 18	S171-S172
		1	Subtract Unlike Fractions- Move to Pictorial- Rename One Number	6- Lesson 18	S173
		1	Subtract- Unlike Fractions- Move to Pictorial- Rename Minuend and Subtr	6- Lesson 18	S174
		1	Subtract Fractions- Move from Pictorial to Abstract	6- Lesson 18	S175
		1	Subtract Fractions- Without Models	6- Lesson 18	S176
		1	Add Mixed Numbers- Concrete	6- Lesson 19	S181-S182
		1	Add Mixed Numbers- Concrete to Pictorial	6- Lesson 19	S183-S184
		1	Add Mixed Numbers- Pictorial to Abstract	6- Lesson 19	S185
		1	Add Mixed Numbers Without Models	6-Lesson 19	S186
		1	Subtract Mixed Numbers- Concrete	6-Lesson 19	S187-S188
		1	Subtract Mixed Numbers- Concrete to Pictorial	6-Lesson 19	S189-S190
		1	Subtract Mixed Numbers- Pictorial to Abstract	6-Lesson 19	S191
		1	Subtract Mixed Numbers Without Models	6-Lesson 19	S192
Fraction - Multiplication	Fraction Strips, Colored Pencils	1/2	Multiply Fractions and Whole Numbers - Concrete and Pictorial	5- Lesson 20	S197
		1/2	Multiply Fractions by Fractions - Concrete and Pictorial	5- Lesson 20	S198
		1/2	Multiply Fractions - Area Model	5- Lesson 20	S199-S200
		1/2	Comparing Products of Fractions and Whole Numbers- Concrete and Picto	5- Lesson 21	S206-S207
		1/2	Comparing Products of Fractions and Numbers Greater than 1	5- Lesson 21	S209-S210
Fraction-Division	Fraction Strips, Colored Pencils	2	Representing Fractions as Division	5- Lesson 22	S216
		2	Representing Fractions as Division with Quotients as Mixed Numbers	5- Lesson 22	S217
		2	Division of Whole Numbers with Fraction and Mixed Number Quotients	5- Lesson 22	S218
		2	Dividing Whole Numbers by Fractions	5- Lesson 23	S225-S226
		2	Dividing Fractions by Whole Numbers	5- Lesson 23	S227-S228
		2	Dividing Whole Numbers by Fractions- Concrete (Only if more is needed)	6- Lesson 11	S106
		2	Dividing Fractions by Fractions- Concrete to Pictorial	6- Lesson 11	S107-S108
		2	The Relationship Between Division and Multiplication	6- Lesson 11	S109
		2	Dividing Fractions Using Reciprocals	6- Lesson 11	S110
Add Integers	Algebra Tiles, Colored Pencils	2	Concrete Representation- Concept of Integers		
		2	Add Integers- Adding the Opposite	7-Lesson 11	S112
		2	Add Integers with Like Signs	7- Lesson 11	S113
		2	Add Integers with Unlike Signs	7-Lesson 11	S114
		2	Add Integers with Unlike Signes- Exploring Rules and the Commutative Pro	7-Lesson 11	S115
		2	Rules	7- Lesson 11	S117
Subtract Integers	Algebra Tiles, Colored Pencils	2	Reviewing Absolute Value	7- Lesson 12	S126
		2	Subtracting Two Positive Values and Two Negative Values	7- Lesson 12	S127
		2	Subtracting a Negative from a Positive and a Positive from a Negative	7-Lesson 12	S128
		2	Subtractnig Integers and Corresponding Addition Problems	7-Lesson 12	S129
		2	Rules	7- Lesson 11	S117 or S130
Multiply Integers	Algebra Tiles, Colored Pencils	2	Multiply Meaning	7- Lesson 13	
		2	Multiply Integers- Positive times Positive	7- Lesson 13	S139
		2	Multiply Integers- Positive times Negative	7- Lesson 13	S139
		2	Multiply Integers- Negative times Positive	7- Lesson 13	S139
		2	Multiply Integers- Negative times Negative	7- Lesson 13	S139
		2	Multiply Integers- Pictorial and Verbal with Gaining Groups	7- Lesson 13	S140
		2	Multiply Integers- Pictorial and Verbal with Creating the Possibility of Losi	7- Lesson 13	S140
		2	Rules	7- Lesson 11	S117 or S143
Divide Integers and Rational Numbers	Algebra Tiles, Colored Pencils	2	Dividing- Meaning		
		2	Divide Integers- Discovery Activity- Positive divided by a Positive:	7- Lesson 14	S152
		2	Divide Integers- Discovery Activity- Negative divided by a Positive:	7- Lesson 14	S152
		2	Divide Integers- Discovery Activity-Negative divided by a Negative	7- Lesson 14	S152
		2	Divide Integers- Discovery Activity- Positive divided by a Negative	7- Lesson 14	S152
		2	Divide Integers- Pictorial and Verbal	7- Lesson 14	S153
		2	Relationship between Division and Multiplication of Integers	7- Lesson 14	S154
		2	Rules	7- Lesson 14	S117 or S156
		2	Identifying Patterns with Terminating Decmials	7- Lesson 15	S168
		2	Concrete Representation- Introduction to the Scale	6- Lesson 23	S274
		2	Addition Equations- Concrete- Pictorial- Abstract	6- Lesson 23	S275-S276
		2	Subtraction Equations	6- Lesson 23	S278

Trainig Topic	Materials	Week		KEMS/KEAS Lesson	KEMS Pages
Equation and Inequalities- Grade 6 and 7	Algebra Unit Tiles, Cups	2	Multiplication Equations- Concrete- Pictorial- Abstract	6- Lesson 24	S290-S291
		2	Division Equations	6- Lesson 24	S292
		2	Concrete Representation- Introduction to the Scale- Zero Pairs	7- Lesson 18	S213
		2	Addition Equations with Concrete- Pictorial- Abstract with Integers	7- Lesson 18	S214-S215
		2	Addition Equations with Concrete- Pictorial- Abstract Models using Zero P	7- Lesson 18	S215-S216
		2	Subtraction Equations with Pictorial- Abstract Models with Integers	7- Lesson 18	S216-S217
		2	Multiplication Equations- Concrete- Pictorial- Abstract with Integers	7- Lesson 18	S223-S224
		2	Division Equations- Abstract with Integers	7- Lesson 18	S225
		2	Two Step Equations with Multiplication and Addition- Concrete- Pictorial-	7- Lesson 19	S233-S234
		2	Two Step Equations with Multiplication and Addition- Concrete- Pictorial-	7- Lesson 19	S235-S236
		2	Two Step Equations with Multiplication and Subtraction- Pictorial- Abstrac	7- Lesson 19	S237-S238
		2	Two Step Equations with Division- Abstract- with Integers	7- Lesson 19	S239-S240
		2	Inequality Symbols	7- Lesson 20	S247
		2	Inequalities with Negative Numbers	7- Lesson 20	S250
		2	Two Step Inequalities- Multiplication and Division with Negative Numbers	7- Lesson 20	S258-S259
Equations- Grade 8	Algebra Tiles	2	Exploring Like Terms	8- Lesson 10	S121-S122
		2	Solving Equations by Combing Like Terms	8- Lesson 10	S120, S123-S124
		2	Solving Equations with the Distributive Property	8- Lesson 10	S125-S127
		2	Solving Equations with Square Roots with Positive Solutions	8- Lesson 10	S129-S130
		2	Modeling and Solving One Variable Linear Equations with One Solution	8- Lesson 11	S135, S136- S139
		2	Modeling and Solving One Variable Linear Equations with No Solution	8- Lesson 11	S139-S140
		2	Modeling and Solving One Variable Linear Equations with Infinite Solution	8- Lesson 11	S141-S142
		2	Summarizing the Solutions of One Variable Equations	8- Lesson 11	S143
Ratios and Unit Rates	Toothpicks, Two-Color Counters, Index Cards	2	Ratios - Concrete- Pictorial	6-Lesson 4	6- S31
		2	Ratios- Abstract	6-Lesson 4	6- S33
		2	Unit Rates - Concrete and Pictorial	6-Lesson 4	6- S34
		2	Unit Rates - Abstract	6-Lesson 4	6- S36
		2	Ratios and Tables - Concrete	6-Lesson 5	6- S41
		2	Ratios and Tables - Pictorial	6-Lesson 5	6- S42
		2	Ratios and Tables - Abstract with One Table	6-Lesson 5	6- S43
		2	Ratios and Tables - Graphing Ratios on the Coordinate Plane	6-Lesson 5	6- S44
		2	Ratios and Tables - Comparing Two Tables	6-Lesson 5	6- S46
		2	Unit Rate Problems - Concrete with Tape Diagrams	6-Lesson 6	6- S52
		2	Unit Rate Problems - Pictorial with Tape Diagrams	6-Lesson 6	6- S53- S54
		2	Unit Rate Problems with Unit Pricing and Constant Speed	6-Lesson 6	6- S56
		2	Discovery Activity - Converting Ratios - Extend the SOLVE Problem	6-Lesson 8	6-S71-S72
		2	Converting Ratios using the Conversion Factor	6-Lesson 8	6- S73
		2	Converting Measurements with Ratios - Graphic Organizer	6- Lesson 8	6- S74
Proportionality in 7th Grade	Colored Pencils, Two-Color Counters	2	Equivalent Fractions	7- Lesson 5	7- S39-S40
		2	Introduction to Means and Extremes	7- Lesson 5	7- S41
		2	Proportions and Cross Products	7- Lesson 5	7- S42
		2	Proportional Relationships in Tables	7- Lesson 5	7- S43-S44
		2	Constant of Proportionality	7- Lesson 6	7- S49
		2	Finding Constant of Proportionality - Diagrams	7- Lesson 6	7- S50
		2	Finding Constant of Proportionality - Tables	7- Lesson 6	7- S51
		2	Finding Constant of Proportionality - Graphs	7- Lesson 6	7- S52
		2	Finding Constant of Proportionality - Equations and Verbal Descriptions	7- Lesson 6	7- S53
		2	Representing Proportional Relationship with Equations - Concrete	7- Lesson 7	7- S58
		2	Representing Proportional Relationship with Equations - Pictorial	7- Lesson 7	7- S59
		2	Proportional Relationships with Equations - Tables	7- Lesson 7	7- S61
		2	Proportional Relationships with Equations - Graphs	7- Lesson 7	7- S63
		2	Proportional Relationships with Equations - Abstract	7- Lesson 7	7- S65
		2	Identifying Proportional Relationships in Graphs	7- Lesson 8	7- S70-S72
		2	Determining if a Relationship is Proportional	7- Lesson 8	7- S75
Percents	Colored Pencils, CM Cubes	2	Percent as a Rate - Using CM Cubes	6-Lesson 7	6- S62
		2	Percent as a Rate - Pictorial	6-Lesson 7	6- S62
		2	Percents and Ratios - Pictorial	6-Lesson 7	6- S63
		2	Percent as a Rate - Abstract with Graphic Organizer	6-Lesson 7	6- S64
		2	Percent as a Rate - Abstract	6-Lesson 7	6- S66

Trainig Topic	Materials	Week		KEMS/KEAS Lesson	KEMS Pages
Percents	CM Cubes, Calculator	2	Finding Percents Using the Percent Proportion	7- Lesson 9	7- S85-S87
		2	Percents in Real-Life Situations	7- Lesson 9	7- S89-S90
		2	Discovery Activity - Percent of Change - Extend the SOLVE Problem	7- Lesson 10	7- S98-S99
		2	Percent of Change	7- Lesson 10	7- S100
		2	Use Percent of Change to Find Actual Change	7- Lesson 10	7-S103-S104
Polynomials- Add and Subtract	Algebra Tiles, Colored Pencils	2	Introduction to Algebra Tiles	KEAS- Lesson 29	
		2	Add Polynomials	KEAS- Lesson 29	K- S263
		2	Subtract Polynomials	KEAS- Lesson 29	K-S264
Polynomials- Multiply	Algebra Tiles, Colored Pencils	2	Multiply a Monomial by a Binomial	KEAS- Lesson 30	K-S270- S271
		2	Multiply Polynomials without Algebra Tiles	KEAS- Lesson 30	K-S275
		2	Multiply Binomials	KEAS- Lesson 31	K-S282-S283
		2	Binomial x Trinomial	KEAS- Lesson 32	K-S290
		2	Trinomial x Trinomial	KEAS- Lesson 32	K-S291
		2	Trinomial x Binomial	KEAS- Lesson 32	K-S292
Polynomials- Factoring	Algebra Tiles, Colored Pencils	3	Factoring Polynomials	KEAS- Lesson 33	K-S299- S300
		3	Factoring the GCF	KEAS- Lesson 33	K-S301
		3	Factoring without Algebra Tiles	KEAS- Lesson 33	K-S304
		3	Multiply Binomials with Algebra Tiles (Problem 1) Factoring Trinomials wi	KEAS- Lesson 34	K-S310
		3	Factoring Trinomials with Algebra Tiles (Problem 1 and Problem 2)	KEAS- Lesson 34	K-S312
		3	Factoring with Negative Terms- Problem 3 and Problem 4	KEAS- Lesson 34	K-S313
		3	The Box Method	KEAS- Lesson 34	K-S314
		3	Factor by Grouping	KEAS- Lesson 34	K-S315
		3	Two Perfect Squares- Problem 1	KEAS- Lesson 35	K-S321
		3	Two Perfect Squares- Problem 2	KEAS- Lesson 35	K-S321
		3	Two Perfect Squares- Problem 3	KEAS- Lesson 35	K-S321
		3	The Box Method	KEAS- Lesson 35	K-S323
Building a Quadratic Function- Linear to Quadratic	Colored Pencils, Ruler, Graph Paper, Algebra Tiles	2/3	Building a Quadratic Funciton- Part 1		
		2/3	Building a Quadratic Funciton- Part 2		
		2/3	Forms of Quadratic Functions		
		2/3	Key Feature Connections		
		2/3	Comparing Key Feautures of Quadratic Function		
		2/3	Opitonal Activity- Key Features		
Quadratic Application	Colored Pencils, Algebra Tiles, Scissors, Graphing Technology	3	Quadratic Application with Key Features- Making Meaning of the Questions with the Graph		
		3	Quadratic Application with Key Features- Solving for Key Features Algebraically		
		3	Quadratic Applications- Consectutive Numbers		
		3	Quadratic Applications- Increasing Sides of a Figure		
		3	Quadratic Applications- Sidewalk Applications- Creating a Model to Represent the Situations		
		3	Quadratic Applications- Increasing Area by a Percentage- Creating a Model to Represent the Situation		
		3	Quadratic Applications- Missing Side Length- Creating a Model to Represent the Situation		
Completing the Square	Colored Pencils, Algebra Tiles, Graphing Technology	3	Creating a Perfect Square with a Quadratic Expression		
		3	Creating Equivalnet Expressions for Quadratics		
		3	Equivalent Equations- Notice and Wonder		
		3	Writing Equivalent Equations in the form of $(x-p)^2=q$		
		3	Connecting the Graph of a Quadratic Function to Solving by Completing the Square		
Exponential - When Time Intervals Change	Colored Pencils, Graph Paper	3	Exploring the Meaning of an Exponent – When the Unit of Time and Cycles Differ – Less Than One Unit		
		3	Exploring the Meaning of an Exponent – When the Unit of Time and Cycles Differ – Greater Than One Unit		
		3	Comparing Less Than An Hour and More Than An Hour		
		3	Interpreting and Rewriting Exponential Functions - Introduction		
		3	Interpreting and Rewriting Exponential Functions – Equivalent Expressions		
		3	Interpreting and Rewriting Exponential Functions – Putting It All Together		
		3	Try It Out		
Exponential Relating to Logarithmic Functions	Colored Pencils, Scissors, Graph Paper, Graphing Technology	3	Writing and Using Equivalent Expressions		
		3	Exploring Inverse Functions		
		3	Exploring Inverse Functions Algebraically		
		3	Logarithm Definition		
		3	Evaluating Logarithms		
Polynomial Functions	Colored Pencils, Graphing	3	Connection Between Roots and Quadratic Graphs		
		3	Linear Factors and Multiplicity		
		3	Analyzing Key Features of a Polynomial Function		
		3	Card Sort Activity		

Trainig Topic	Materials	Week		KEMS/KEAS Lesson	KEMS Pages
Functions	Technology	3	Extending the Card Sort Activty- Patterns with Function Degree		
		3	Patterns with Constant Terms- Additional Key Features Connections		
		3	Determine the Function- Try It Out.		
Exploring Trig Ratios	Colored Pencils, Ruler, Graphing Technology, Scissors	3	Introduction and Notice and Wonder with Triangles		
		3	Exploring Ratios in a Right Triangle		
		3	Relationships with Sides in Right Triangles		
		3	Exploring Ratio Relationships with Similar Triangles – Reference Angle 1		
		3	Missing Sides with Similarity		
		3	Exploring Ratio Relationships with Similar Triangles – Reference Angle 2		
		3	Reasoning with Right Triangle Relationships		
		3	Exploring Complementary Angle Ratio Relationships		
		3	Real World Problems with Trigonometry		
		3	Angles of Elevation and Depression – Making Meaning		
		3	Real World Problems with Angle of Elevation and Depression		
		3	Inverse Trigonometric Functions – Finding the Angle Measure		
FM Addition and Subtraction (K-1)	CM Cubes, 2 Dice, Colored pencils, Two-Colored Counters	V1	Connecting Learning - Addition		
		V1	Build Conceptual Understanding in Addition		
		V1	Construct Pictorial Models		
		V1	FM Addition- Building from Kindergarten to 1st Grade		
		V1	Connecting Learning - Subtraction		
		V1	Build Conceptual Understanding in Subtraction		
		V1	Construct Pictorial Models		
		V1	FM Subtraction- Building from Kindergarten to 1st Grade		
		V1	Developing Fact Fluency in K and 1		
Area of Squares and Rectangles	Toothpicks, Colored Pencils	V1	Investigate Area of Squares and Rectangles - Concrete	3- Lesson 26	S246
		V1	Investigate Area of Squares and Rectangles - Pictorial to Abstract	3- Lesson 26	S247
		V1	Rectangles and Squares Using Formulas - Abstract	3- Lesson 26	S248-S249
Perimeter vs. Area	CM Cubes	V1	Comparing Areas when Perimeter Stays the Same	3- Lesson 27	S254-S255
		V1	More Comparing Areas when Perimeter Stays the Same (part 2)	3- Lesson 27	S254-S257
		V1	Comparing Perimeters When Area Stays the Same	3- Lesson 27	S258-S259
Area of Complex Figures	Sticky Notes, Colored Pencils	V1	Area of Complex Figures - Concrete	3- Lesson 28	S267-S268
		V1	Calculate the Area of Complex Figures - Pictorial	3- Lesson 28	S269-S270
		V1	Calculate the Area of Complex Figures - Abstract	3- Lesson 28	S271
		V1	SOLVE Closure	3- Lesson 28	S272
Multiply Decimals	Algebra Tiles, Colored Pencils	V1	Place Value Patterns with Decimal Multiplication	5- Lesson 4	S30
		V1	Introduction to Multiplying Decimals as Repeated Addition	5- Lesson 11	S99
		V1	Multiplying Whole Numbers and Decimals as Repeated Addition - Concret	5- Lesson 11	S100
		V1	Connecting the Concrete to the Pictorial Model	5- Lesson 11	S100
		V1	Estimation		
		V1	Multiply Whole Numbers and Decimals- Other Models		
		V1	Multiply a Decimal by a Decimal	5- Lesson 11	S101
		V1	Multiply Decimals Using Power of Ten	5- Lesson 11	S103
		V1	Patterns with Multiplying Decimals	6- Lesson 14	S154-S155
		V1	Multiplying Decimals without Models	6- Lesson 14	S156
Divide Decimals	Algebra Tiles, CM Cubes, Colored Pencils	V1	Place Value Patterns with Decimal Division	5- Lesson 4	S30
		V1	Understanding Division		
		V1	Divide by a Whole Number		
		V1	Divide with Decimals – Tenths	5- Lesson 12	S110
		V1	Divide with Decimals – Hundredths	5- Lesson 12	S111-S112
		V1	Divide with Decimals Using Power of 10	5- Lesson 12	S113
		V1	Reasoning about the Quotient	5- Lesson 12	S113
		V1	Patterns with Dividing Decimals	5- Lesson 12	S113
		V1	Patterns with Dividing Decimals	6- Lesson 15	S169
		V1	Divide Decimals - Abstract	6- Lesson 15	S170
Rational Numbers in the Real Number	Algebra Tiles, Sticky Notes	V2	Square Roots - Concrete and Pictorial	8- Lesson 4	S30-S31
Identify, Compare and Order Irrational	Algebra Tiles, Sticky Notes	V2	Square Roots of Irrational Numbers	8- lesson 5	S42-S44
Pythagorean	Scissors, Glue	V2	Discovery Activity - Pythagorean Theorem	8- Lesson 30	S391-S393
		V2	Applying the Pythagorean Theorem	8- Lesson 30	S394

Trainig Topic	Materials	Week		KEMS/KEAS Lesson	KEMS Pages
Pythagorean Theorem - Part 1	Scissors, Glue, Copy of T805	V2	SOLVE Closure - Pythagorean Theorem Part 1 - SOLVE Problem 1	8- Lesson 30	S395
		V2	Exploring Pythagorean Triples	8- Lesson 30	S396
		V2	Exploring the Converse of the Pythagorean Theorem	8- Lesson 30	S397
Pythagorean Theorem - Part 2	Scissores, Copy of T836	V2	Review of Vertical and Horizontal Distances on the Coordinate Plane	8- Lesson 31	S406-S407
		V2	Discovery Activity - Pythagorean Theorem	8- Lesson 31	S408-S409
		V2	Applying the Pythagorean Theorem on the Coordinate Plane	8- Lesson 31	S408, S410
		V2	Finding the Hypotenuse on the Coordinate Plane using Edge Lengths or Co	8- Lesson 31	S411-S412
		V2	SOLVE Closure	8- Lesson 31	S413
Circumference of a Circle	Ruler, Colored Pencils, Scissors, Copy of T651	V2	Parts of a Circle	7- Lesson 25	S326
		V2	Radius and Diameter	7- Lesson 25	S327
		V2	Diameter and Circumference	7- Lesson 25	S328
		V2	Circle Circumference	7- Lesson 25	S328-S330
		V2	SOLVE Closure	7- Lesson 25	S331-S335
Area of a Circle	Ruler, Colored Pencils, Glue	V2	Discovery Activity - Area of a Circle	7- Lesson 26	S339-S340
		V2	Practice - Area of Circles	7- Lesson 26	S341
		V2	Relationship Between Area of a Square and Area of a Circle	7- Lesson 26	S342-S343
		V2	SOLVE Closure	7- Lesson 26	S344-S348
Rigid Transformations	Sticky Notes, Scissors, Maker, Ruler, Protractor	V2	Translations	8- Lesson 26	S328- S331
		V2	Reflections	8- Lesson 26	S332-S335
		V2	Rotations about the Origin	8- Lesson 26	S336-S337
		V2	Rotations About a Point	8- Lesson 26	S338-S339
		V2	SOLVE Closure	8- Lesson 26	S340-S341
Transformations and Congruence	Sticky Notes, Scissors	V2	Congruency with Translations	8- Lesson 27	S346-S347
		V2	Congruency with Reflections	8- Lesson 27	S348-S349
		V2	Congruency with Rotations	8- Lesson 27	S350-S351
		V2	Identifying Sequences of Transformations	8- Lesson 27	S352-S354
		V2	SOLVE Closure	8- Lesson 27	S355-S356
The Effects of Transformations	Colored Pencils, Ruler, Protractor	V2	Coordinate Patterns with Translations	8- Lesson 28	S361-S362
		V2	Cordinate Patterns with Rotations	8- Lesson 28	S363-S364
		V2	Coordinate Patterns with Reflections	8- Lesson 28	S365
		V2	Exploring Dilations Informally	8- Lesson 28	S366-S367
		V2	Scale Factors	8- Lesson 28	S368
		V2	Defining Dilations	8- Lesson 28	S369-S370
		V2	Practice with Scale Factors and Dilations	8- Lesson 28	S371-S372
		V2	Identifying Transformations	8- Lesson 28	S373
		V2	SOLVE Closure	8- Lesson 28	S374
Transformations and Similarity	Colored Pencils	V2	Similar Figures	8- Lesson 29	S379
		V2	Dilations and Scale Factors	8- Lesson 29	S380-S381
		V2	Effects and Multiple Transformations	8- Lesson 29	S382-S385
		V2	Identifying Sequences of Transformations	8- Lesson 29	S386
		V2	SOLVE Closure	8- Lesson 29	S387
Story of a Function	Colored Pencils, Ruler	V1	A Function Story- Condo Stairs- Intro to Key Features in Real Life		
		V1	Key Features in Multiple Representations- Domain/Range/intercepts		
		V1	Key Features in Multiple Representations- More Features		
		V1	Aquarium Task- Scenario 1		
		V1	Aquarium Task- Scenario 2		
Systems	Colored Pencils, Ruler, Scissors, Post It Notes, CM Cubes	V1	Building Conceptual Understanding of Substitution - Noah's Ark		
		V1	Building a System Conceptually		
		V1	Solving with Substitution- Conceptual to Algebraic		
		V1	SOLVE Problem- Fly Low Airlines		
		V1	Building a System Conceptually to Algebraic- Elimination (Subtraction)		
		V1	Building a System Conceptually to Algebraic- Elimination (Adding the Opposite)		
		V1	Building a System Conceptually to Algebraic- Scaling		
		V1	SOLVE Problem- Bananas and Apples		
Exponential Functions	Colored Pencils, CM Cubes	V3	Recognizing the Type of Growth- Linear or Exponential		
		V3	Representations with Exponential Situations		
		V3	Meaning of the Function Values Revealed in Various Representations		
		V3	Using the Table to Build and Exponential Function		
		V3	Finiding Growth Rate and Initial Value in an Exponential Function or Situation		
		V3	Buidling and Exponential Decay Function		

Trainig Topic	Materials	Week		KEMS/KEAS Lesson	KEMS Pages
Transformations	Colored Pencils, Ruler, Compass, Patty Paper, Index Cards, Protractor	V3	Exploring Translations		
		V3	Exploring Refections		
		V3	Exploring Rotations		
		V3	Rotatoins and Slope Connections		
		V3	Sequence of Transformations- Does Order Matter?		
		V3	Exploring Rotational Symmetry		
		V3	Exploring Reflectional Symmetry		
Congruence	Colored Pencils, Ruler, Compass, Patty Paper, Index Cards	V3	Introduction to Congruece from Rigid Motion		
		V3	Exploring Congruence Criterion- But What If?- Part 1		
		V3	Exploring Congruence Criterion- But What If?- Part 2- #1- ASA		
		V3	Exploring Congruence Criterion- But What If?- Part 2- #2- SAS		
		V3	Exploring Congruence Criterion- But What If?- Part 2- #3- AAS		
		V3	Exploring Congruence Criterion- But What If?- Part 2- #4-SSA		
		V3	Exploring Congruence Criterion- But What If?- Part 2- #5- SSS		
		V3	Exploring Congruence Criterion- But What If?- Part 2- #6- AAA		
		V3	Congruence- Exploration Reflection		
		V3	Exploring Proofs with Triangle Congurnce with Transformations- 1 and 2		
		V3	Proofs within Figures- 3 and 4		
		V3	Proving CPCTC- 5		
		V3	Error Analysis		
		V3	SOLVE Problem Continues		