GRADE 6 Diff Math (GO MATH) SYLLABUS SEMESTER ONE

Big Ideas & Essential Questions	Lesson	State Standard
Unit1: Numbers		
Module1: Integers *****REVIEW** How can you use integers to solve real-world problems?***	1.1-1.3	**[SS 6.1.1b] DK1**
Module2: Factors and Multiples **How can you use greatest common factors and least common multiples to solve real-world problems?**		
How can you find and use the greatest common factor of two whole numbers?	2.1	*[SS 7.1.1d]*
How can you find and use the least common multiple of two numbers?	2.2	
Module3: Rational Numbers **How can you use rational numbers to solve real-world problems?**		
How can you classify rational numbers?	3.1	*[SS 7.1.1d]*
How can you identify opposites and absolute values of rational numbers?	3.2	
How can you compare and order rational numbers?	3.3	*[SS 7.1.1b] DK1&DK2*
Unit2: Number Operations		
Module4: Operations with Fractions ***How can you use operations with fractions to solve real-world problems?***		
*****REVIEW***** *How do you add, subtract, multiply and divide fractions?*	*4.1-4.2*	**[SS 6.1.2a, 6.13a] DK1 & DK2**
How do you divide mixed numbers?	4.3	
How can you solve word problems involving more than one fraction operation?	4.4	
Module5: Operations with Decimals ***How can you use operations with decimals to solve real-world problems?***		
*****REVIEW***** *How do you add, subtract and multiply decimals?*	*5.2-5.3*	**[SS 6.1.2b, 6.1.4a, 6.1.3a] DK1&DK2**
How do you divide decimals?	5.4	
How can you solve problems involving multiplication and division of fractions and decimals?	5.5	
DCA-M#1		
UnitI [GR7]: Integer Operations		
Gr7Module1: Adding and Subtracting Integers **How can you use addition and subtraction of integers to solve real-world problems?**		
How do you add integers with the same sign?	1.1	*[SS 7.1.3a] DK1*
How do you add integers with different signs?	1.2	
How do you subtract integers?	1.3	
How do you solve multistep problems involving addition and subtraction of integers?	1.4	
Gr7Module2: Multiplying and Dividing Integers **How can you use multiplication and division of integers to solve real-world problems?**		
How do you multiply integers?	2.1	*[SS 7.1.3a] DK1*
How do you divide integers?	2.2	
How can you use integer operations to solve real-world problems?	2.3	
Unit4: Equivalent Expressions		
Module9: Generating Equivalent Numerical Expressions **How can you generate equivalent numerical expressions and use them to solve real-world problems?**		
How do you use exponents to represent numbers?	9.1	**[SS 6.1.1d] DK1**
How do you write the prime factorization of a number?	9.2	**[SS 6.1.1e] DK1**
How do you use the order of operations to simplify expressions with exponents?	9.3	**[SS 6.3.3b] DK1**
Module10: Generating Equivalent Algebraic Expressions **How can you generate equivalent algebraic expressions and use them to solve real-world problems?**		
How can you model and write algebraic expressions?	10.1	**[SS 6.3.1a, 6.3.2a] DK1&DK2**
How can you use the order of operations to evaluate algebraic expressions?	10.2	**[SS 6.3.3b] DK1**
How can you identify and write equivalent algebraic expressions?	10.3	
Unit5A: Equations and Inequalities		
Module11: Equations and Relationships **How can you use equations and relationships to solve real-world problems?**		
How do you write equations and determine whether a number is a solution of an equation?	11.1	**[SS 6.3.1b, 6.3.2a] DK1 & DK2**
How do you solve equations that contain addition or subtraction?	11.2	**[SS 6.3.3d, 6.3.3e, 6.3.2a, 6.3.1b] DK1 & DK2**
How do you solve equations that contain multiplication or division?	11.3	
How can you use inequalities to represent real-world constraints or conditions?	11.4	
DCA-M#2		
Gr7Module6: Expressions and Equations **How can you use algebraic expressions and equations to solve real-world problems?**		
How do you use one-step equations with rational coefficients to solve problems?	6.2	
How do you write a two-step equation?	6.3	
How do you solve a two-step equation?	6.4	*[SS 7.3.3d] DK1 & DK2*
SS= State Standard DK = Depth of Knowledge assessed		

Infuse throughout

- Check the reasonableness of solutions throughout the semester. [SS 6.1.4a] DK1 & DK2
- Select and apply the appropriate method of computation when problem solving. [SS 6.1.3b] DK1 & DK2
- Model Contextualized Problems using various Representations [SS 6.3.2a] DK1 & DK2

Use 6th Grade NeSA-M Review problems throughout curriculum as warm-ups and spiral review.

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GRADE 6 Diff Math (GO MATH) SYLLABUS SEMESTER TWO

Big Ideas and Essential Questions	Lesson	State Standard
Unit5B (Module12): Relationships in Two Variables		
Module12: How can you use relationships in two variables to solve real-world problems?		
How do you locate and name points in the coordinate plane? How can you use absolute value to find the distance between two points with the same x- or y-coordinates?	12.1 & *14.1	**[SS 6.2.2a] DK1** *[SS 7.2.2c] DK1*
How can you identify independent and dependent quantities from tables and graphs?	12.2	
How can you use an equation to show a relationship between two variables?	12.3	**[SS 6.3.1a, 6.3.1b] DK1 & DK2**
How can you use verbal descriptions, tables, and graphs to represent algebraic relationships?	12.4	
Unit6: Relationships in Geometry		
Module13: Area and Polygons **How can you find the area of an irregular polygon using area formulas?**		
How can you find the areas of parallelograms, rhombuses, and trapezoids?	13.1	**[SS 6.2.5e] DK1 & DK2**
How can you find the area of a triangle?	13.2	
How do you use equations to solve problems about area of rectangles, parallelograms, trapezoids, and triangles?	13.3	
How can you find the area of a polygon by breaking it into simpler shapes?	13.4	
Gr7Module9: Circumference and Area **How can you apply geometry concepts to solve real-world problems?**		
How do you find and use the circumference of a circle?	9.1	*[SS 7.2.5b] DK1 & DK2*
How do you find the area of a circle?	9.2	
How do you find the area of composite figures?	9.3	
Module15: Surface Are and Volume of Solids **How can a model help you to solve surface are and volume problems?**		
How can you use nets to find surface area? *(Identify 2-D drawings of 3-D objects)*	15.1	*[SS 6.2.4a] DK1 & DK2*
How can you find the volume of a rectangular prism?	15.2	**[SS 6.2.5f] DK1 & DK2**
How can you write equations to solve problems involving volume of rectangular prisms?	15.3	
Unit7: Measurement and Data		
Module16: Displaying, Analyzing, and Summarizing Data **How can you solve real-world problems by displaying, analyzing, and summarizing data?**		
How can you use measures of center to describe a data set?	16.1	**[SS 6.4.1c] DK1**
How can you use a box plot and measures of spread to describe a data set?	16.3	**[SS 6.4.1b] DK1 & DK2**
How can you summarize and display numeric data? ***(supplement stem-and-leaf plots?)***	16.4	
How can you display data in a histogram?	16.5	
UnitP: Percent & Probability		
Module8: Percents **How can you use percents to solve real-world problems?**		
How can you write a ratio as a percent?	8.1	
How can you write equivalent percents, fractions and decimals?	8.2	*[SS 7.1.1a] DK1&DK2]*
Gr7Module12&13: Experimental and Theoretical Probability **How can you use probability to solve real-world problems?**		
How can you describe the likelihood of an event?	12.1	
How do you find the experimental probability of a simple event?	12.2	**[SS 6.4.3c] DK1**
How can you find the theoretical probability of a simple event?	13.1	**[SS 6.4.3b] DK1 & DK2**
DCA-M#3		
******At this point in curriculum 6th Grade Assessed State Standards have been covered******		
Unit3: Proportionality: Ratios and Rates		
Module6: Representing Ratios and Rates **How can you use ratios and rates to solve real-world problems?**		
How do you use ratios to compare two quantities?	6.1	
How do you use rates to compare quantities?	6.2	
How can you use ratios and rates to make comparisons and predictions?	6.3	
Module7: Applying Ratios and Rates **How can you use ratios and rates to solve real world problems?**		
How can you represent real-world problems involving ratios and rates with tables and graphs?	7.1	
How can you solve problems with proportions?	7.2	
How can you use percents to solve problems?	*8.3	*[SS 7.1.3.c] DK1 & DK2*
How do you convert units within a measurement system?	7.3	
How can you use ratios and proportions to convert measurements?	7.4	
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Infuse throughout:

- Select and apply the appropriate method of computation when problem solving. [SS 6.1.3b] DK1 & DK2
- Check the reasonableness of solutions throughout the semester. [SS 6.1.4a] DK1 & DK2
- Model Contextualized Problems using various Representations [SS 6.3.2a] DK1 & DK2

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