SENECA VALLEY SCHOOL DISTRICT

CURRICULUM

Course Title:	**Math**
Grade Level(s):	**1**
Periods Per Week:	**5**
Length of Period:	**70 minutes**
Length of Course:	**Full Year**
Faculty Author(s):	**Kimberly Ball, Macrina Bayne, Yvonne Dobrzanski, Pam Krause, Stacey Richard, Andrea DeFabbo**
Date:	**May 2013**

COURSE DESCRIPTION:

This course will promote mathematical knowledge and understanding in the areas of numbers, number systems and relationships; computation; measurement; mathematical reasoning and connections; geometry; mathematical problem-solving and communication. The students will integrate and apply these concepts to real-life experiences.

Standards for Mathematical Practices

Make sense of problems and persevere in solving them.
Reason abstractly and quantitatively.
Construct viable arguments and critique the reasoning of others.
Model with mathematics.
Use appropriate tools strategically.
Attend to precision.
Look for and make use of structure.
Look for and express regularity in repeated reasoning.

The following outline provides a general overview of the course content, not a chronological timetable. The weeks denoted for each area provide an idea for the overall time spent working with a given topic throughout the school year.

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2.1 Numbers and Operations	

COURSE OUTLINE	**PA CORE STANDARDS**		
B. **Numbers and Operations in Base Ten**	CC.2.1.1.B.1 Extending the counting sequence (any range within 1-120) to read and write numerals to represent objects. CC.2.1.1.B.2 Use place value concepts to represent amounts of tens and ones and to compare two digit numbers. • The two digits in a 2-digit number represent a group of tens and a group of ones. • Compare two 2-digit numbers using greater than, equal to, and less than. • Record comparisons using symbols >, <, =. Number Blocks Task (Unit 4) CC.2.1.1.B.3 Use place value concepts and properties of operations to add and subtract within 100. • Add within 100, understanding that tens are added together, ones are added together, and composing a ten may be necessary. • Given a two-digit number, mentally find 10 more or 10 less without having to count; explain reasoning. • Subtract multiples of 10 from multiples of 10 using concrete models or drawings. Ten More, Ten Less (Unit 5)		

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2.2 Algebraic Concepts	

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A.
Operations and Algebraic Thinking
	CC.2.2.1.A.1
	Represent and solve number and word problems involving addition and subtraction within 20.
	• Composing and decomposing numbers
	• Problems with unknown in all positions
	• Using a symbol to represent an unknown (e.g. empty box)
	• Comparing quantities
	• Addition problems with 2 and 3 addends
	• Introduce strategies for addition and subtraction
	  o Counting on
	  o Counting back
	  o Make ten
	  o Related facts / Fact families
	  o Doubles
	  o Doubles +1
	Bag of Beads Task (Unit 1)
	Missing Numbers (Unit 3: a subtraction task)
	
	CC.2.2.1.A.2
	Understand and apply properties of operations and the relationship between addition and subtraction.
	• Commutative property (1+2=3 therefore 2+1=3)
	• Associative property (grouping: 2+5+5 = 10 +2)
	• Understand subtraction as an unknown-addend problem. For example, subtract 10-8 by finding the number that makes 10 when added to 8.
	• Understand meaning of the equal sign and determine if equations are true or false. (e.g. 6=6, 7=8-1, 5+2=2+5, 4+1=5+2)
	Sandwich Task (Unit 7)
	Balancing Equations: Which One is True? (Unit 2 advanced)
	Balancing Equations: Which One is True? (Unit 2 on-level)		

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2.3 Geometry	

COURSE OUTLINE	PA CORE STANDARDS		
A. **Geometry**	CC.2.3.1.A.1 Compose and distinguish between two- and three- dimensional shapes based on their attributes. • Defining attributes (e.g. number of sides) v. non-defining attributes (e.g. color) • Create accurate representations of shapes. • Create a composite shape from two- or three-dimensional shapes. o Compose new shapes from the composite shape. CC.2.3.1.A.2 Use the understanding of fractions to partition shapes in halves and quarters. • Describe shares using the words *halves, fourths,* and *quarters.* • Use phrases *half of, fourth of,* and *quarter of.* • Understand that decomposing into more shares creates smaller shares.		

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2.4 Measurement, Data and Probability	

COURSE OUTLINE	PA CORE STANDARDS		
A. **Measurement and Data**	CC.2.4.1.A.1 Order lengths and measure them both indirectly and by repeating length units. • Use standard and nonstandard units of measurement Measuring Is a Snap (2 pages) (Unit 7) CC.2.4.1.A.2 Tell and write time using both analog and digital clocks. • Hour • Half-hour • Nearest half-hour CC.2.4.1.A.4 Represent and interpret data using tables/charts. • Include 2 or more categories • Compare categories using terms *more, fewer, less, total,* and *in all.* Through the Grapevine (Unit 6)		
http://www.k-5mathteachingresources.com/	This site offers a variety of resources aligned to the Common Core. It's worth your time to check it out!		
Discovery Education Learn 360	How Much is a Million?: • Animated Book • Reading Rainbow episode Math Monsters • Short videos explain math concepts. Some are better than others. Mathica's Math Shop: The King Comes Calling (Counting by 10s as a strategy) Discovering Math: Beginner (series) • These videos are longer – between 15 and 30 minutes – and cover a wide range of concepts within a topic.		
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