Grade K -- Mathematics Standards of Learning for Virginia

		Number and Number Sense								Computation and Estimation	Patterns, Functions, and Algebra
No.	**Unit/Lesson**	K.1a	K.1b	K.2a	K.3a	K.3c	K.3d	K.4a	K.4b	K.6	K.13
0.1.0	**Numbers to 10**										
0.1.1	Count 1-4										
0.1.2	Count 1-5										
0.1.3	Count 1-7										
0.1.4	Count 1-9										
0.1.5	Count 1-10										
0.1.6	Count 0-10										
0.1.7	Represent 0-2										
0.1.8	Represent 0-5										
0.1.9	Represent 0-8										
0.1.10	Represent 0-10										
0.2.0	**Numbers to 20**										
0.2.1	Count and Represent 0-13										
0.2.2	Count and Represent 0-16										
0.2.3	Count and Represent 0-19										
0.2.4	Count and Represent 0-20										
0.3.0	**Compare Numbers to 10**										
0.3.1	Match to Find More										
0.3.2	More, Fewer, and Same Amounts										
0.3.3	Count to Find the Greater Number										
0.3.4	Compare Two Numbers										
0.3.5	Compare within 5										
0.3.6	Compare within 10										
0.4.0	**Understand Addition within 10**										
0.4.1	Represent Addition within 5										
0.4.2	Put Together Groups within 5										
0.4.3	Explore Number Pairs for 0–5										
0.4.4	Explore Number Pairs for 6–9										
0.4.5	Explore Number Pairs for 10										
0.4.6	Find Numbers that Make 10										
0.4.7	m Ƶ ş F Decompose	ẅ ç	0.6.4 Compose and Decompose Teen Numbers								
0.7.0	**Number Patterns**										
0.7.1	One Less/One More										
0.7.2	Count to 100 by Ones										
0.7.3	Count to 100 by Tens										
0.7.4	Count Forward										

										Measurement and Geometry		
No.	**Unit/Lesson**	1.1a	1.1b	1.1d	1.2a	1.2b	1.6	1.7a	1.7b	1.10	1.14	1.15
1.1.0	**Problem Solving: Addition**											
1.1.1	Model Joining Stories (to 5)											
1.1.2	Ways to Make 6 and 7											
1.1.3	Ways to Make 8 and 9											
1.1.4	Model Joining Stories (to 9)											
1.1.5	Commutative Property and Add Zero Property											
1.1.6	Ways to Make 10											
1.1.7	Model Equations to Represent Addition Stories											
1.1.8	Write Equations to Represent Addition Stories											
1.2.0	**Problem Solving: Subtraction**											
1.2.1	Addition and Subtraction Fact Families											
1.2.2	Model Take From Stories											
1.2.3	Find Missing Parts of 7 and 8											

										Measurement and Geometry		
No.	**Unit/Lesson**	2.1a	2.1b	2.1c	2.2a	2.5a	2.5b	2.6b	2.6c	2.8a	2.16	2.17
2.1.0	**Use Models to Add and Subtract**											
2.1.1	Use the Addition Table to Add											
2.1.2	Use the Addition Table to Add and Subtract											
2.1.3	Find Missing Addends with the Hundred Chart											
2.1.4	Add and Subtract with the Hundred Chart											
2.1.5	Add and Subtract within 20 Using Base Ten Blocks											
2.1.6	Add and Subtract within 20 Using the Number Line											
2.1.7	Add and Subtract within 100 Using Base Ten Blocks											
2.1.8	Add and Subtract within 100 Using the Number Line											
2.1.9	Use Tape Diagrams to Add											
2.1.10	Use Tape Diagrams to Add and Subtract											
2.2.0	**Use Strategies to Add and Subtract**											
2.2.1	Make a Ten to Add											
2.2.2	Make a Ten to Subtract											
2.2.3	Two-step Problems											
2.2.4	Make a Simpler Problem to Add											
2.2.5	Make a Simpler Problem to Subtract											
2.2.6	Problem Solving with Sums to 100											
2.2.7	Problem Solving with Sums and Differences to 100											
2.3.0	**Numbers to 1000 and Place Value**											
2.3.1	Numbers through 100											
2.3.2	Numbers through 1000											
2.3.3	Represent Numbers on a Number Line											
2.3.4	Compare Numbers Using Place Value											
2.4.0	**AÕ ei bw D V ms**											

													Patterns, Functions, and	
No.	**Unit/Lesson**	3.2a	3.2b	3.2c	3.4a	3.4b	3.4c	3.4d	3.7b	3.8b	3.9a	3.9b	3.16	3.17
3.1.0	**Understand Multiplication**													
3.1.1	Equal Groups: Repeated Addition													
3.1.2	Equal Groups: Unknown Items Per Group													
3.1.3	Equal Groups: Unknown Number of Groups													
3.1.4	Equal Groups: Rows													
3.1.5	Equal Groups: The Array Model													
3.1.6	Commutative Property of Multiplication													
3.1.7	Multiplicative Identity Property and Zero Property of Multiplication													
3.1.8	Problem Solving with Multiplication													
3.2.0	**Concept of Area**													
3.2.1	Compare Areas of Rectangles													
3.2.2	Tile Rectangles to Find Area													
3.2.3	Area Formula													
3.2.4	Decompose a Rectangle to Find Area													
3.2.5	Area with Customary Units													
3.2.6	Area with Metric Units													
3.2.7	Decompose Figures to Find Area													
3.3.0	**Patterns in Multiplication**													
3.3.1	Multiply by 2													
3.3.2	Multiply by 3 and 5													
3.3.3	Introduction to Multiplication Tables													
3.3.4	Use Multiplication Tables													
3.3.5	Basic Multiplication Facts													
3.3.6	Patterns in the Multiplication Table													
3.3.7	Learn Multiplication Facts													
3.4.0	**Understand Division**													
3.4.1	Equal Groups: Unknown Items Per Group													
3.4.2	Equal Groups: Unknown Number of Groups													
3.4.3	Equal Groups: Tape Diagrams													
3.4.4	Equal Groups: Arrays													
3.4.5	Problem Solving with Related Facts													
3.5.0	**Use Mixed Operations to Solve Problems**													
3.5.1	Order of Operations with Parentheses													
3.5.2	Order of Operations without Parentheses													
3.5.3	Associative and Commutative Properties													
3.5.4	Multiples of Ten													
3.5.5	Tape Diagrams													
3.5.6	Problem Solving with Mixed Operations													
3.6.0	**Measurement: Time, Volume, and Mass**													
3.6.1	Tell Time													
3.6.2	Problem Solving with Elapsed Time													
3.6.3	Liquid Volume													
3.6.4	Mass													
3.7.0	**Fraction Concepts**													
3.7.1	Model Equal Parts													
3.7.2	Use Fraction Bars to Name Fractions													
3.7.3	Use Fraction Rectangles and Circles to Name Fractions													
3.7.4	Find Equivalent Fractions													
3.7.5	Compare Fractions													
3.7.6	Find Fractions on a Number Line													
3.7.7	Compare Fractions on a Number Line													

No.	Unit/Lesson	4.1a	4.1b	4.1c	4.2a	4.2b	4.3a	4.3c	4.3d	4.4a	4.4b	4.4c	4.4d	4.5a	4.5b	4.5c	4.15	4.16
4.1.0	**Foundations in Base Ten**																	
4.1.1	Read and Write Multi-Digit Numbers																	
4.1.2	Place Value Relationships																	
4.1.3	Compare Numbers																	
4.1.4	Round Numbers																	
4.1.5	Addition																	
4.1.6	Subtraction																	
4.1.7	Problem Solving with Addition and Subtraction																	
4.2.0	**Multiplication and Division**																	
4.2.1	Multiplication as Comparison																	
4.2.2	Tape Diagrams and Multiplicative Comparison																	
4.2.3	Find Missing Factors																	
4.2.4	Factors and Multiples																	
4.2.5	Investigate Remainders																	
4.3.0	**Extend Multiplication Concepts**																	
4.3.1	Multiply by 10, 100, and 1000																	
4.3.2	Estimate Products																	
4.3.3	Use Area Diagram to Multiply by 1-Digit Number																	
4.3.4	Use Distributive Property to Multiply by 1-Digit Number																	
4.3.5	Use Area Diagram to Multiply by 2-Digit Number																	
4.3.6	Use Distributive Property to Multiply by 2-Digit Number																	
4.3.7	Problem Solving with Multiplication																	
4.4.0	**Extend Division Concepts**																	
4.4.1	Divide 10s, 100s, and 1000s																	
4.4.2	Estimate Quotients																	
4.4.3	Area Diagrams in Division																	
4.4.4	Distributive Property in Division																	
4.4.5	Zeros in Division																	
4.4.6	Problem Solving with 1-Digit Divisors																	
4.4.7	Problem Solving with Division and Other Operations																	
4.5.0	**Equivalent Fractions**																	
4.5.1	Fractions: Compare Whole Numbers to Make New Numbers																	
4.5.2	Compare Fractions with Models																	
4.5.3	Compare and Order Fractions																	
4.5.4	Multiply to Create Equivalent Fractions																	
4.5.5	Divide to Create Equivalent Fractions																	
4.6.0	**Operations with Fractions**																	

										Measurement and Geometry	Patterns, Functions, and Algebra
No.	**Unit/Lesson**	5.1	5.2a	5.2b	5.4	5.5a	5.5b	5.6a	5.6b	5.8a	5.18
5.1.0	**Whole Numbers: Place Value & Multiplication**										
5.1.1	Place Value and Exponents										
5.1.2	Multiply by 1-Digit Factors										
5.1.3	Multiply by 2-Digit Factors										
5.1.4	Use Algorithms with 1-Digit Factors										
5.1.5	Use Algorithms with 2-Digit Factors										
5.2.0	**Whole Numbers: Division**										
5.2.1	Use Multiplication to Estimate Quotients										
5.2.2	Use Rounding to Estimate Quotients										
5.2.3	Use Repeated Subtraction and Multiples of 10										
5.2.4	Use Models with 2-Digit Divisors										
5.2.5	Methods for Division										
5.2.6	Problem Solving with Division										
5.3.0	**Decimals: Place Value and Operations**										
5.3.1	Decimal Place Value										
5.3.2	Round Decimals										
5.3.3	Compare Decimals										
5.3.4	Add and Subtract Decimals										
5.3.5	Multiply and Divide Tenths and Hundredths										
5.3.6	Multiply Decimals										
5.3.7	Divide Decimals										
5.3.8	Problem Solving with Decimal Operations										
5.4.0	**Fractions: Addition and Subtraction**										
5.4.1	Equivalent Forms										
5.4.2	Find Common Denominators Using Models										
5.4.3	Find Common Denominators										
5.4.4	Add and Subtract Fractions and Mixed Numbers Using Models										
5.4.5	Add and Subtract Fractions and Mixed Numbers										
5.4.6	Estimate Sums and Differences										
5.4.7	Problem Solving with Addition and Subtraction of Fractions										
5.5.0	**Fractions: Multiplication and Division**										
5.5.1	Inverse Operations										
5.5.2	Multiply Fractions Using Bar Models										
5.5.3	Multiply Fractions Using a Number Line										
5.5.4	Multiply Fractions Using an Area Diagram										
5.5.5	Scale										
5.5.6	Divide Whole Numbers by Unit Fractions										
5.5.7	Divide Unit Fractions by Whole Numbers										
5.5.8	Problem Solving with Multiplication and Division of Fractions										
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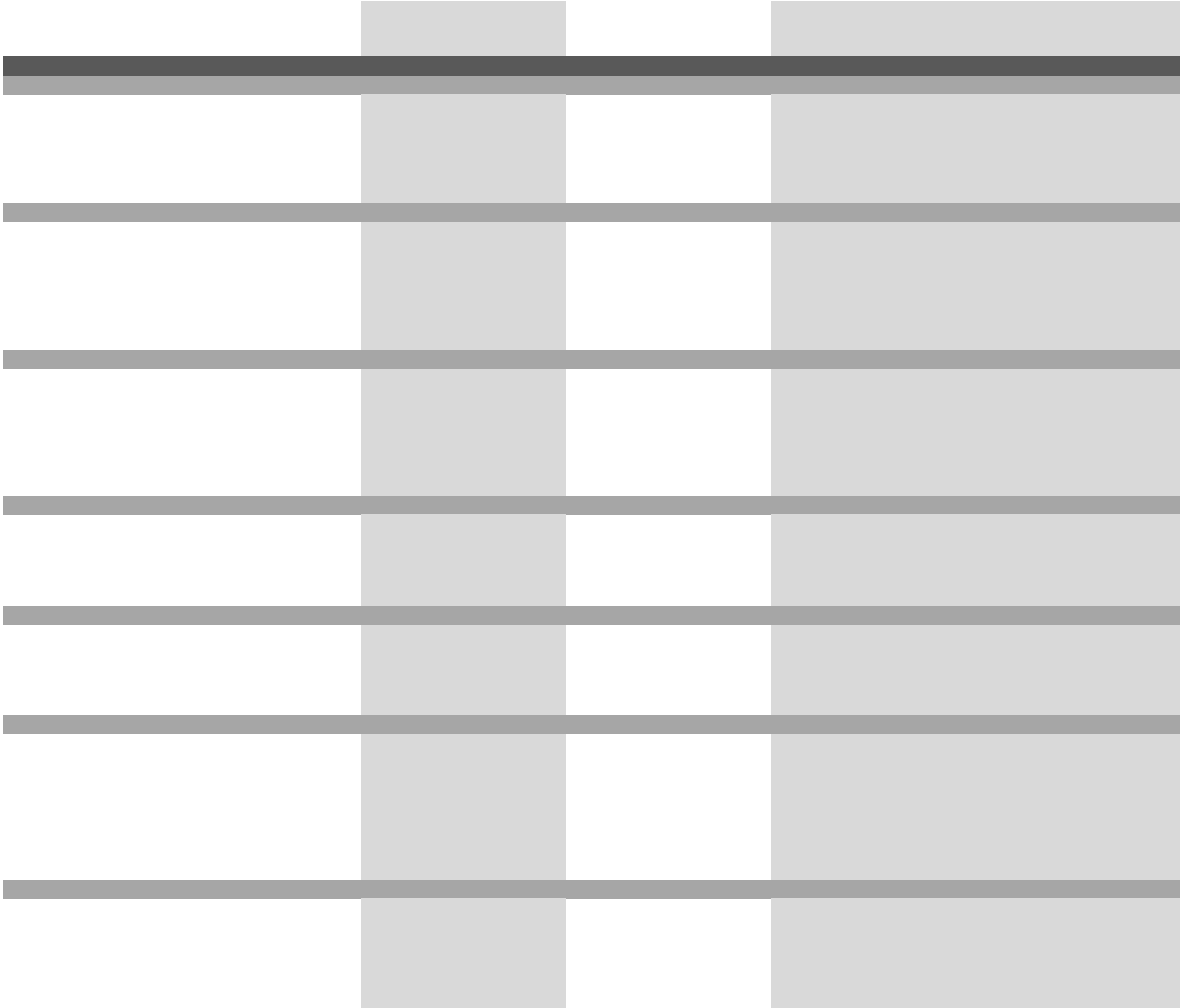
No.	Unit/Lesson	6.1	6.2a	6.2b	6.3a	6.3b	6.3c	6.4	6.5a	6.5b	6.5c	6.8a	6.8b	6.12a	6.12b	6.12d	6.13	6.14a	6.14b
6.1.0	**Rational Numbers and Absolute Value**																		
6.1.1	Explore Integers																		
6.1.2	Rational Numbers																		
6.1.3	Compare and Order Rational Numbers																		
6.1.4	Understand Absolute Value																		
6.1.5	Problem Solving with Absolute Value																		
6.2.0	**Rational Numbers in the Coordinate Plane**																		
6.2.1	Graphs on the Coordinate Plane																		
6.2.2	Distance in the Coordinate Plane																		
6.2.3	Reflections on the Coordinate Plane																		
6.2.4	Problem Solving with the Coordinate Plane																		
6.3.0	**Division of Fractions**																		
6.3.1	Model Division with Unit Fractions																		
6.3.2	Model Fraction Division																		
6.3.3	Write Fraction Division Equations																		
6.3.4	Fraction Division with Equations																		
6.3.5	Create, Model, and Solve Problems with Fraction Division																		
6.3.6	Problem Solving with Fractions and Mixed Numbers																		
6.4.0	**Ratios and Rates**																		
6.4.1	Visualize and Represent Ratios																		
6.4.2	Compare Ratios																		
6.4.3	Unit Rates																		
6.4.4	Graph Rates and Other Ratios																		
6.4.5	Convert Measurement Units																		
6.4.6	Problem Solving with Unit Rates																		
6.5.0	**Proportions and Proportional Reasoning**																		
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