**Virginia Standards of Learning Assessment**

**Grade 5 Mathematics Performance Level Descriptors**

| **Fail/Below Basic** | **Fail/Basic** | **Pass/Proficient** | **Pass/Advanced** |
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| A student performing at this level should be able to:*Reporting Category 1: Number and Number Sense** round whole numbers
* compare and order fractions with like denominators
* compare decimals with the same number of place values represented
* identify single-digit odd and even numbers

*Reporting Category 2: Computation and Estimation** add, subtract, multiply and divide whole numbers to solve equations
* add and subtract simple fractions with like denominators
* list the order of operations

*Reporting Category 3: Measurement and Geometry** identify:
	+ squares,
	+ rectangles, and
	+ triangles
* calculate perimeter and area of:
	+ squares and
	+ rectangles
* identify parts of a circle
* determine elapsed time to the nearest hour
* identify right and straight angles
* recognize congruent transformations

*Reporting Category 4: Probability, Statistics, Patterns, Functions, and Algebra** display data in charts and tables
* understand that mean is a fair share
* recognize patterns in shapes or pictures
* identify the variable in an expression
 | A student performing at this level should be able to:*Reporting Category 1: Number and Number Sense** round decimals to the nearest tenth
* compare and order decimals
* compare and order fractions
* use manipulatives to represent equivalent fractions and decimals
* identify prime and composite numbers less than 20

*Reporting Category 2: Computation and Estimation** add, subtract, multiply and divide whole numbers
* add and subtract decimals
* add and subtract simple fractions
* identify the first step when using the order of operations

*Reporting Category 3: Measurement and Geometry** calculate perimeter and area of:
	+ squares,
	+ rectangles, and
	+ triangles
* describe parts of a circle
* determine elapsed time to the nearest quarter hour
* measure angles
* identify:
	+ acute,
	+ obtuse,
	+ right, and
	+ straight angles
* identify translations and reflections

*Reporting Category 4: Probability, Statistics, Patterns, Functions, and Algebra** identify equally likely events
* display data
* determine mean and mode
* identify patterns
* identify variables in expressions and equations
 | A student performing at this level should be able to:*Reporting Category 1: Number and Number Sense** round decimals to the nearest whole number, tenth, and hundredth
* compare and order fractions and decimals
* identify fraction/decimal equivalence
* describe odd, even, prime, and composite numbers and describe the sum or difference as odd/even

*Reporting Category 2: Computation and Estimation** add, subtract, multiply and divide decimals;
* add and subtract fractions and mixed numbers
* multiply a whole number by a fraction
* simplify numerical expressions using order of operations

*Reporting Category 3: Measurement and Geometry** find area and perimeter of:
	+ squares,
	+ rectangles, and
	+ triangles
* find volume of rectangular solids
* identify equivalent metric measurements
* describe the relationship between parts of a circle
* determine elapsed time to the nearest minute
* measure angles
* classify angles and triangles
* identify transformations

*Reporting Category 4: Probability, Statistics, Patterns, Functions, and Algebra** construct:
	+ charts,
	+ tables,
	+ stem-and-leaf plots, and
	+ line plots
* determine mean, median, mode, and range
* subdivide and combine polygons
* apply the Fundamental Counting Principle or construct a sample space to determine probability
* extend patterns
* represent mathematical relationships with a variable in expressions and equations
 | A student performing at this level should be able to:*Reporting Category 1: Number and Number Sense** round decimals to the nearest whole number, tenth, and hundredth
* represent and compare fraction/decimal relationships, including repeating decimals
* explain prime, composite, even, and odd numbers and describe the sum or difference as odd/even

*Reporting Category 2: Computation and Estimation** create and solve practical problems with:
	+ whole numbers,
	+ decimals,
	+ fractions, and
	+ mixed numbers
* simplify numerical expressions having parentheses using order of operations

*Reporting Category 3: Measurement and Geometry** solve practical problems involving area and perimeter of plane figures
* solve practical problems involving volume of rectangular solids
* use relationships between parts of a circle to determine unknown measures
* solve elapsed time practical problems
* determine unknown angle measures in triangles
* apply transformations
* subdivide and combine polygons

*Reporting Category 4: Probability, Statistics, Patterns, Functions, and Algebra** determine probability using Fundamental Counting Principal or sample space
* interpret data represented in stem-and-leaf plots and line plots
* determine mean, median, mode, and range
* solve practical problems using patterns
* use variables and equations to represent mathematical relationships
* create word problems to represent a given equation
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