

**Virginia Standards of Learning Assessment
Grade 4 Mathematics Performance Level Descriptors**

Fail/Below Basic	Fail/Basic	Pass/Proficient	Pass/Advanced
<p>A student performing at this level should be able to:</p> <p><i>Reporting Category 1: Number and Number Sense</i></p> <ul style="list-style-type: none"> • identify whole numbers, fractions, and decimals using concrete materials • name comparison symbols (<, >, =) • round a whole number to the greatest place value <p><i>Reporting Category 2: Computation and Estimation</i></p> <ul style="list-style-type: none"> • add and subtract aligned whole numbers and decimals without regrouping • add fractions with like denominators <p><i>Reporting Category 3: Measurement and Geometry</i></p> <ul style="list-style-type: none"> • recognize units of measure • identify time on a digital and an analog clock • determine the perimeter or area of a rectangle given a figure with measurements • identify concrete models of cubes, cones, cylinders, points, lines, line segments, rays, and angles 	<p>A student performing at this level should be able to:</p> <p><i>Reporting Category 1: Number and Number Sense</i></p> <ul style="list-style-type: none"> • identify place and value of digits in whole numbers and decimals • round and compare whole numbers • use models to compare decimals or fractions • identify the fraction bar as a division symbol <p><i>Reporting Category 2: Computation and Estimation</i></p> <ul style="list-style-type: none"> • recall basic multiplication facts up to 10x10 • add and subtract decimals that are aligned • determine factors and multiples of a number • add and subtract fractions with like denominators <p><i>Reporting Category 3: Measurement and Geometry</i></p> <ul style="list-style-type: none"> • measure objects for length, weight, mass, and liquid volume • determine elapsed time in hours given beginning and ending times • identify squares and rectangles • determine perimeter or area of a given square or rectangle with 	<p>A student performing at this level should be able to:</p> <p><i>Reporting Category 1: Number and Number Sense</i></p> <ul style="list-style-type: none"> • read, write, round, compare, and order: <ul style="list-style-type: none"> ○ whole numbers, ○ decimals, ○ fractions, and ○ mixed numbers • represent fraction/fraction and fraction/decimal equivalence • relate fractions to division <p><i>Reporting Category 2: Computation and Estimation</i></p> <ul style="list-style-type: none"> • recall basic multiplication and division facts • add, subtract, multiply, and divide whole numbers to estimate and solve single-step and multistep practical problems • add and subtract decimals to estimate and solve single-step and multistep practical problems • add and subtract fractions to estimate and solve single-step and multistep practical problems • find common multiples and factors of two numbers, including: <ul style="list-style-type: none"> ○ least common multiple and ○ greatest common factor 	<p>A student performing at this level should be able to:</p> <p><i>Reporting Category 1: Number and Number Sense</i></p> <ul style="list-style-type: none"> • apply place value relationships and fraction and decimal equivalence to solve problems involving: <ul style="list-style-type: none"> ○ rounding, ○ comparing, and ○ ordering with: <ul style="list-style-type: none"> • whole numbers, • decimals, • fractions, and • mixed numbers • use fraction/decimal and fraction/fraction equivalence to solve problems • use division statements and fractions interchangeably to: <ul style="list-style-type: none"> ○ create, ○ represent, and ○ solve problems <p><i>Reporting Category 2: Computation and Estimation</i></p> <ul style="list-style-type: none"> • apply mathematical properties to create and solve single- and multistep practical problems with: <ul style="list-style-type: none"> ○ whole numbers, ○ decimals, and ○ fractions

Fail/Below Basic	Fail/Basic	Pass/Proficient	Pass/Advanced
<ul style="list-style-type: none"> identify figures that are squares and figures that are not squares <p><i>Reporting Category 4: Probability, Statistics, Patterns, Functions, and Algebra</i></p> <ul style="list-style-type: none"> identify events that are "certain" and "impossible" to occur identify a bar graph and a line graph identify repeating patterns using models or concrete materials identify that an equation must have an equal sign 	<p>measurements</p> <ul style="list-style-type: none"> identify solid geometric figures, points, lines, line segments, rays, and angles from pictures identify parallel, perpendicular, and intersecting lines <p><i>Reporting Category 4: Probability, Statistics, Patterns, Functions, and Algebra</i></p> <ul style="list-style-type: none"> identify an event's likelihood match a probability event represented in a picture to its fraction equate "0" with an impossible event and "1" with a certain event construct and display data in bar graphs and line graphs match data to graphs identify and extend repeating patterns using models determine if two numerical expressions are equal 	<p><i>Reporting Category 3: Measurement and Geometry</i></p> <ul style="list-style-type: none"> find area and perimeter of rectangles and squares estimate measures measure objects solve practical problems given unit measure involving: <ul style="list-style-type: none"> length, weight, mass, and liquid volume find elapsed time in hours and minutes describe and contrast characteristics of solid and plane geometric figures classify quadrilaterals <p><i>Reporting Category 4: Probability, Statistics, Patterns, Functions, and Algebra</i></p> <ul style="list-style-type: none"> describe outcomes of events represent probability using: <ul style="list-style-type: none"> words, fractions, number lines, and models construct, organize, and interpret bar graphs and line graphs compare representations of the same data recognize and extend numerical and pictorial patterns demonstrate equality in equations 	<ul style="list-style-type: none"> find least common multiple and greatest common factor of a set of numbers <p><i>Reporting Category 3: Measurement and Geometry</i></p> <ul style="list-style-type: none"> solve practical area and perimeter problems apply equivalent measures to solve practical problems involving: <ul style="list-style-type: none"> length, weight, mass, and liquid volume solve practical problems involving elapsed time compare, contrast, and create representations of solid and plane figures compare and contrast quadrilaterals <p><i>Reporting Category 4: Probability, Statistics, Patterns, Functions, and Algebra</i></p> <ul style="list-style-type: none"> evaluate experiments to determine and represent probability using: <ul style="list-style-type: none"> likelihood, fractions, number lines, models, and practical problems analyze different representations of the same data to solve problems analyze and extend numerical patterns

Fail/Below Basic	Fail/Basic	Pass/Proficient	Pass/Advanced
			<ul style="list-style-type: none">• represent equivalent relationships in equations