

# 5th Grade Math

PURMANCE '20-'21

MA 5.1 NUMBER		5th Grade	Date Taught	Activities	Assessment
MA.5.1.1 Numeric Relationships	Students will demonstrate, represent, and show relationships among whole numbers, fractions, and decimals within the base-ten number system.				
MA 5.1.1.a	Determine multiple equivalent representations for whole numbers and decimals through the thousandths place using standard form, word form, and expanded notation	1/6 to 8/20	expanded notation (word + standard form review)	- exponents - independent practice	
MA5 .1.1.b	Compare whole numbers, fractions, mixed numbers, and decimals through the thousandths place and represent comparisons using symbols $<$ , $>$ , or $=$ .	9/8 1/19 1/25 10/20 3/9 3/9	comparing whole #s comparing decimals comparing fractions rounding 10s rounding decimals	up to the thousandths with unlike denominators 100s 1000s place up to thousandths	
MA 5.1.1.c	Round whole numbers and decimals to any given place				

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MA 5.1.1.d	Recognize and generate equivalent forms of commonly used fractions, decimals, and percents (e.g., halves, thirds, fourths, fifths, and tenths)	9/1	fraction manipulatives	whole group
MA 5.1.1.e	Write powers of 10 with exponents	1/8 4/10	expanded notation w/ exponents writing powers of 10 w/ exponents	10 w/ exponents
MA 5.1.2 Operations	Students will demonstrate the meaning of operations and compute accurately with whole numbers, fractions, and decimals			
MA 5.1.2.a	Multiply multi-digit whole numbers using the standard algorithm	8 24 10 14 12 1	multi-digit by single-digit multiply by two multiply 3 digit by 3	boardwork digit # by two digit digit numbers.
MA 5.1.2.b	Divide four-digit whole numbers by a two-digit divisor, with and without remainders using the standard algorithm	10 24 2 18	divide by powers of 10 divide by double	5 of 10 digit divisor
MA 5.1.2.c	Multiply a whole number by a fraction or a fraction by a fraction using models and visual representations	9 30 1 7	fraction of a number fraction by a	number fraction

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MA 5.1.2.d	Divide a unit fraction by a whole number and a whole number by a unit fraction. Divide a unit fraction by a whole number and a whole number by a unit fraction up to a four-digit whole number by a one-digit divisor with and without a remainder	$\frac{2}{17}$ $\frac{2}{18}$	divide by two fractions divide fraction	by whole #
MA 5.1.2.e	Explain division of a whole number by a fraction using models and visual representations	$\frac{12}{1}$	$\frac{1}{3}$ of 12 small	group manipulatives
MA 5.1.2.f	Interpret a fraction as division of the numerator by the denominator	$\frac{9}{16}$ $\frac{12}{10}$	boardwork - 3 ways to show division converting "top heavy" fractions	#s
MA 5.1.2.g	Add, subtract, multiply, and divide decimals to the hundredths using concrete models or drawings and strategies based on place value, properties of operations (i.e., Commutative, Associative, Distributive, Identity, Zero), and/or relationships between operations	$\frac{9}{14}$ $\frac{3}{24}$	commutative, associative, identity, zero properties multiply decimal	#s
MA 5.1.2.h	Add and subtract fractions and mixed numbers with unlike denominators	$\frac{8}{17}$	Add/subtract - like	denominators

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MA 5.1.2.i	Determine the reasonableness of computations involving whole numbers, fractions, and decimals	4/7	dividing by decimals and determining reasonableness	boardwork + IXL
MA 5.1.2.j	Multiply and divide by powers of 10	$\begin{array}{r} 9 \\ 22 \\ \hline 1111 \end{array}$	multiply by 10s Divide by 10s	
MA 5.2 ALGEBRA	Students will communicate algebraic concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines			
MA 5.2.1 Algebraic Relationships	Students will demonstrate, represent, and show relationships with expressions and equations			
MA 5.2.1.a	Form ordered pairs from a rule such as $y=2x$ , and graph the ordered pairs on a coordinate plane	2/11	graphing in	quadrant 1
MA 5.2.2 Algebraic Processes	Students will apply the operations of properties when evaluating expressions and solving equations			

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MA 5.2.2.a	Interpret and evaluate numerical or algebraic expressions using order of operations (excluding exponents) <b>PENDAS</b>	4/8	-order of operations	
MA 5.2.3 Applications	Students will solve real-world problems involving equations with fractions and mixed numbers.	12/3	+ + - fractions	w/ like denominators
MA 5.2.3.a	Solve real-world problems involving addition and subtraction of fractions and mixed numbers with like and unlike denominators			
MA 5.3 GEOMETRY	Students will communicate geometric concepts and measurement concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.			
MA 5.3.1 Characteristics	Students will identify and describe geometric characteristics and create two- and three-dimensional shapes.			
MA 5.3.1.a	Identify three-dimensional figures including cubes, cones, pyramids, prisms, spheres, and cylinders	11/25	identify 3D figures	

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MA 5.3.3 Measurement	MA 5.3.2.b	MA 5.3.2.a	MA 5.3.2 Coordinate Geometry	MA 5.3.1.c	MA 5.3.1.b
Students will perform and compare measurements and apply formulas	Graph and name points in the first quadrant of the coordinate plane using ordered pairs of whole numbers.	Identify the origin, x axis, and y axis of the coordinate plane	Students will determine location, orientation, and relationships on the coordinate plane.	Justify the classification of two-dimensional figures based on their properties	Identify faces, edges, and vertices of rectangular prisms
	2/11	2/9		9/30	9/30
	graphing in quadrant 1 - battleship	coordinate plane - independent MKS		independent practice 1-36	independent practice 1-36

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MA 5.3.3.a	Recognize that solid figures have volume that is measured in cubic units	3/17	Volume	V = l x w x h and counting cubes
MA 5.3.3.b	Use concrete models to measure the volume of rectangular prisms in cubic units by counting cubic units	3/17	Volume	counting cubes
MA 5.3.3.c	Generate conversions within the customary and metric systems of measurement	11/20	whole group	practice - whiteboard
MA 5.4 DATA	Students will communicate data analysis/probability concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines			
MA 5.4.1 Representations	Students will create displays that represent data	12/10	Creating graphs	Inv-7
MA 5.4.2 Analysis & Applications	Students will analyze data to address the situation.			

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MA 5.4.2.a	Use observations, surveys, and experiments to collect, represent, and interpret the data using tables (e.g., frequency charts) and bar graphs	10/19	created survey & displayed in table	IXL
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MA 5.4.2.b	Formulate questions that can be addressed with data and make predictions about the data	10/5	Investigation 6	- gathering and analyzing data - putting data into graphs/charts
MA 5.4.3 Probability	Students will interpret and apply concepts of probability			