



# REGIONAL SCHOOL DISTRICT 13

## Grade 5 Math Rubric

	<b>4 Meeting</b>	<b>3 Approaching</b>	<b>2 Developing</b>	<b>1 Beginning</b>
<b>5.NBT.A.3 5.NBT.A.4 Reads, writes, compares, and rounds decimals (to the thousandths)</b>	Reads, writes, and models decimal numbers to the thousandths in all three forms (standard, expanded, and word form); orders and compares (using $<$ , $>$ , $=$ symbols); rounds decimals to any place	Reads, writes, models, orders, and rounds decimal numbers to the thousandths place inconsistently	Reads, writes, models, orders, or rounds decimal numbers (applies some of the above skills)	Reads a decimal aloud using a place value chart, but may not yet be able to model decimals with pictures or objects or name the decimal from a model
<b>5.NBT.A.1 5.NBT.A.2 Demonstrates an understanding of the place value system including decimals</b>	Recognizes that a digit in a base-ten system is worth 10 times the digit to its right, and $1/10$ of the digit to its left; uses that understanding and the pattern of zeros to describe and compare the magnitude of digits or multiply and divide by powers of 10	Recognizes the patterns in a base-ten system (both whole numbers and decimals) but inconsistently applies the patterns to solve problems involving magnitude of numbers or multiplying/dividing by powers of ten	Recognizes the patterns in a base ten system with whole numbers only; can compare the magnitude of whole numbers based on place value understanding	Recognizes the base ten nature of the place value chart with direct consistent support

<p><b>5.NBT.B.6</b>  <b>Applies strategies to divide multi-digit numbers</b></p>	<p>Divides up to 4-digit whole numbers by up to 2-digit whole numbers to consistently get accurate answers (strategies may include standard algorithm, partial quotient, area model or other place value-based strategies); can explain the strategy used</p>	<p>Divides multi-digit whole numbers by a single-digit divisor using place value-based strategies</p>	<p>Divides multi-digit whole numbers using strategies not based place value, such as concrete materials or pictures</p>	<p>Divides by single-digit divisors yielding single-digit quotients using multiplication understanding, pictures or concrete materials</p>
<p><b>5.NBT.B.5</b>  <b>Multiplies multi-digit numbers fluently</b></p>	<p>Multiplies two whole numbers using the standard algorithm (or partial products strategy) consistently and accurately; multiplies any whole number by a one- or two-digit factor</p>	<p>Multiplies a multi-digit number by a one-digit factor using standard algorithm; or is inconsistently accurate with applying the standard algorithm (does not include calculation errors)</p>	<p>Multiplies using a strategy other than the standard algorithm, such as area model or distributive property</p>	<p>Multiplies using strategy not based on place value, such as repeated addition or uses concrete materials or pictures</p>
<p><b>5.MD.C.5</b>  <b>Solves word problems involving volume</b></p>	<p>Solves word problems by applying a standard formula (<math>l \times w \times h</math> and <math>B \times h</math>) including missing dimensions, composed solid figures, and real world applications; shows thinking using equations, models, or with math vocabulary</p>	<p>Solves word problems using one formula and explains missing dimension problems  OR  Solves word problems using one formula to find the volume of composed solid figures and explains thinking</p>	<p>Solves word problems involving finding volume of right rectangular prisms using blocks or a picture of blocks; may not yet be able to find volume of composed figures or missing dimensions but defines volume and relates it to three-dimensional thinking</p>	<p>Solves word problems involving volume with direct consistent support</p>
<p><b>5.NF.A.1</b>  <b>5.NF.A.2</b>  <b>Solves word problems involving adding and subtracting fractions with unlike denominators</b></p>	<p>Solves word problems involving adding and subtracting fractions and mixed numbers with unlike denominators using equivalent fractions as a strategy, shows work without concrete materials or pictures</p>	<p>Solves word problems involving adding and subtracting fractions less than one</p>	<p>Solves problems using models or concrete materials; creates equivalent fractions with a common denominator</p>	<p>Solves problems involving fractions and mixed numbers with common denominator</p>

<b>5.NF.B.4.a</b> <b>Multiplies fractions</b>	Multiplies fractions and mixed numbers by applying strategies such as visual models, number lines, or an algorithm	Multiplies fractions by fractions by applying strategies such as visual models, number lines, or an algorithm	Multiplies fractions by whole numbers	Multiplies fractions by whole numbers with direct consistent support
<b>5.NF.B.7</b> <b>Divides fractions by whole numbers and whole numbers by fractions</b>	Divides a whole number by a unit fraction and vice versa by applying a strategy such as a visual model, number line or connection to multiplication to; solves word problems involving this skill	Divides a whole number by a unit fraction and vice versa by applying a strategy such as a visual model, number line or connection to multiplication	Draws a visual model to depict a division equation or writes an equation depicted by a visual model	Draws a visual model to depict a division equation or writes an equation depicted by a visual model with direct consistent support
<b>5.NBT.B.7</b> <b>Applies strategies to add, subtract, multiply and divide decimals to the hundredths</b>	Applies strategies to add, subtract, multiply and divide decimals to the hundredths and relates the concrete or pictorial model to a written method and explain the reasoning used.	Applies strategies to compute decimals in at least three operations up to the hundredths using concrete or pictorial models and relates it to a written method and attempts to explain their reasoning.	Applies strategies to compute decimals in at least two operations up to the hundredths using concrete or pictorial models and relates it to a written method.	Applies strategies to compute decimals in any operation up to the hundredths using concrete or pictorial models and relates it to a written method with direct support.
<b>5.NBT.B.7</b> <b>Multiplies and divides decimals</b>	Multiplies and divides decimals to the hundredths place by applying strategies based on place value, fractions, whole number computation, and modeling; explains reasoning used and relates computation to a model (picture and/or number line); judges the reasonableness of answers	Multiplies and divides decimals to the hundredths place by applying strategies, but can not explain thinking/relate to a model or cannot judge the reasonableness of answers (for example correct digits in the wrong place values for answer)	Multiplies or divides decimals by applying strategies based on place value, but can not explain thinking/relate to a model or cannot judge the reasonableness of answers (for example correct digits in the wrong place values for answer)	Multiplies and divides decimals by applying strategies for whole number computation with direct consistent support
<b>5.OA.A.1</b> <b>5.OA.A.2</b>	Applies the rules of order of operations correctly;	Demonstrates understanding of two	Demonstrates understanding of one of	Evaluates expressions using the order of

<p><b>Demonstrates and applies algebraic concepts</b></p>	<p>uses appropriate vocabulary to describe the process that includes grouping symbols; writes and interprets numerical expressions</p>	<p>algebraic concepts</p>	<p>the algebraic concepts</p>	<p>operations and grouping symbols with direct consistent support</p>
<p><b>5.G.B.3 5.G.B.4 Uses properties to classify two-dimensional figures</b></p>	<p>Uses attributes and properties of two-dimensional figures to organize into a hierarchical classification</p>	<p>Uses attributes and properties of most two-dimensional figures to organize into a hierarchical classification</p>	<p>Sorts two-dimensional figures that share common attributes and properties but is not yet able to recognize that shapes fall into multiple categories (a square is also a rectangle and a parallelogram, for example)</p>	<p>Names two-dimensional figures based on attributes with direct consistent support</p>