

Little Miami 5th Grade Math Curriculum Map and Pacing Guide

Domain & Standards	Key Vocabulary	Content Topic	Resources	Assessments http://oh.portal.airast.org/ocba/resources/?section=1-student-practice-resources	Time frame for Instruction
CHAPTER 1 Numbers & Operations in base 10 (NBT)	Base* Estimate Evaluate* Exponent* Factor Inverse operations* Multiply Numerical expression* Order of Operations* Period* Place value Product Quotient Identity Property Commutative Property Associative Property Distributive Property* * introduced	CLUSTER: Understand the place value system; Perform operations with multi-digit whole numbers and with decimals to hundredths.	Go Math TPT Resource	Mid-Chapter Checkpoint End of Chapter Assessment EDULASTIC TEST https://app.edulastic.com/#renderResource/close/MzAyMTAwODI4OA%3D%3D	20 days
NBT.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right, and 1/10 of what it represents in the place to its left.		Place value patterns	GM 1.1, 1.2		
NBT.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a		Powers of 10 as related to place value	GM 1.4, 1.5		

<p>decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.</p>					
<p>NBT.5 Fluently multiply multi-digit whole numbers using the standard algorithm.</p>		<p>Multiplication of whole numbers</p>	<p>GM 1.6, 1.7</p>		
<p>NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p>		<p>Properties of Operations</p>	<p>GM 1.3, 1.8, 1.9</p>		
<p>Operations & Algebraic Thinking (OA)</p>		<p>CLUSTER: Write and interpret numerical expressions</p>			

OA.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.		Order of Operations	GM 1.11, 1.12		
OA.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.		Numerical Expressions	GM 1.10		

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CHAPTER 2 Numbers & Operations in base 10 (NBT)	Compatible numbers Dividend Divisor Estimate Factor Partial quotients Product Quotient Remainder	CLUSTER: Perform operations with multi-digit whole numbers (and with decimals to hundredths).	Go Math TPT Resource	Mid-Chapter Checkpoint End of Chapter Assessment	15 days
NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.		Place the 1st digit	GM 2.1	EDULASTIC TEST https://app.edulastic.com/#renderResource/close/MzkzMzcyODE2Mw%3D%3D	
		1-digit divisors	GM 2.2		
		2-digit divisors	GM 2.3, 2.4, 2.5, 2.6,		
		Adjust the quotient	GM 2.8		
Numbers & Operations-- Fractions (NF)	CLUSTER: Apply and extend previous understandings of multiplication and division to multiply and divide fractions.				

<p>NF.3 Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p>		<p>Interpret the Remainder</p>	<p>GM 2.7</p>		

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CHAPTER 3 Numbers & Operations in base 10 (NBT)	Hundredth Tenth Place value Round Benchmark *Thousandth *Sequence *Term	CLUSTER: Understand the Place Value System	Go Math TPT Resource	Mid-Chapter Checkpoint End of Chapter Assessment	15 days
CC.5.NBT.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.	* introduced	Thousandths	GM 3.1	EDULASTIC TEST https://app.edulastic.com/#renderResource/close/MTc4MzQyNjQ4MA%3D%3D	
CC.5.NBT.3 Read, write, and compare decimals to thousandths. A. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form.		Place Value of Decimals	GM 3.2		
CC.5.NBT.3 Read, write, and compare decimals to thousandths. B. Compare two decimals to		Understand the place value system	GM 3.3		

<p>thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons</p>					
<p>CC.5.NBT.4 Use place value understanding to round decimals to any place.</p>		<p>Round Decimals</p>	<p>GM 3.4</p>		
<p>CC.5.NBT.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p>		<p>CLUSTER: Perform Operations with Multi-digit Whole Numbers and with Decimals to Hundredths</p> <p>Decimal Addition</p> <p>Decimal Subtraction</p> <p>Estimate Decimal Sums and Differences</p> <p>Add Decimals</p> <p>Subtract Decimals</p> <p>Patterns with Decimals</p> <p>Add and Subtract Money</p> <p>Choose a Method</p>	<p>GM 3.5</p> <p>GM 3.6</p> <p>GM 3.7</p> <p>GM 3.8</p> <p>GM 3.9</p> <p>GM 3.10</p> <p>GM 3.11</p> <p>GM 3.12</p>		

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<p>CHAPTER 4</p> <p>Numbers & Operations in base 10 (NBT)</p>	<p>Decimal Expanded Form Hundredths Multiplication Ones Pattern Place Value Product Tenths Thousandths</p>	<p>CLUSTER: Understand the place value system</p>	<p>Go Math TPT Resource</p>	<p>Mid-Chapter Checkpoint</p> <p>End of Chapter Assessment</p>	
<p>NBT.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole number exponents to denote powers of 10.</p>		<p>Multiplication Patterns with Decimals</p> <p>Multiplying Using Expanded Form</p> <p>Multiplication with Decimals</p>	<p>GM 4.1; 4.3; 4.4; 4.7; 4.8</p>	<p>EDULASTIC TEST https://app.edulastic.com/#renderResource/close/MzY3NzA4OTE4Mg%3D%3D</p>	<p>12 days</p>
<p>NBT.7 Add, Subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p>		<p>Perform operations with multi-digit whole numbers and with decimals to hundredths.</p> <p>Multiply Decimals and Whole Numbers Problem Solving: Multiplying Money</p> <p>Multiplying Decimals-Place the Decimal Point</p> <p>Zeros in the Product</p>	<p>GM 4.2-4.8</p>		

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<p>CHAPTER 5</p> <p>Numbers & Operations in base 10 (NBT)</p>	<p>Compatible numbers*</p> <p>Decimal*</p> <p>Decimal point*</p> <p>Dividend*</p> <p>Division*</p> <p>Divisor*</p> <p>Estimate*</p> <p>Hundredth*</p> <p>Tenth*</p>	<p>CLUSTERS:</p> <p>Understand the place value system;</p> <p>Perform operations with multi-digit whole numbers and with decimals to hundredths.</p>	<p>Go Math TPT Resource</p>	<p>Mid-Chapter Checkpoint</p> <p>End of Chapter Assessment</p> <p>EDULASTIC TEST https://app.edulastic.com/#renderResource/close/MTg4ODgwODM2NQ%3D%3D </p>	12 days
<p>NBT.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.</p>	<p>* introduced</p>	<p>Division Patterns with Decimals</p> <p>Divide Decimals by Whole Numbers</p>	<p>GM 5.1</p> <p>GM 5.2, 5.4</p>	<p>Combined Chapters 4 & 5 Test- https://app.edulastic.com/#renderResource/close/MjQxNzQyMTc0Nw%3D%3D </p>	
<p>NBT.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p>		<p>Estimate Quotients</p> <p>Divide Decimals</p> <p>Write Zeros in the Dividend</p> <p>Problem Solving-Decimal Operations</p>	<p>GM 5.3</p> <p>GM 5.5, 5.6</p> <p>GM 5.7</p> <p>GM 5.8</p>		

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CHAPTER 6 Numbers & Operations-Fractions	Benchmark Common multiple Denominators Difference Equivalent fractions Mixed number Numerators Simplest form Sum Common denominator*	CLUSTER: Use equivalent fractions as a strategy to add and subtract fractions.	Go Math TPT Resource	Mid-Chapter Checkpoint End of Chapter Assessment	15 days
NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.	* introduced	Addition with Unlike Denominators Subtraction with Unlike Denominators Estimate Fraction Sums and Differences Problem Solving: Practice Addition and Subtraction	GM 6.1-6.3, 6.9	EDULASTIC TEST https://app.edulastic.com/#renderResource/close/MzM1Njk0NTgxOQ%3D%3D	
NF.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent		CLUSTER: Use equivalent fractions as a strategy to add and subtract fractions. Common Denominators and Equivalent Fractions	GM 6.4-6.8, 6.10		

sum or difference of fractions with like denominators.		Add and Subtract Fractions Add and Subtract Mixed Numbers Subtraction with Renaming Algebra: Patterns with Fractions Algebra: Use Properties of Addition			
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<p>CHAPTER 7</p> <p>Numbers and Operations-Fraction</p> <p>CC.5.NF</p>	<p>Denominator</p> <p>Equivalent Fractions</p> <p>Mixed Number</p> <p>Numerator</p> <p>Product</p> <p>Simplest Form</p>	<p>CLUSTER:</p> <p>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</p>	<p>Go Math TPT Resource</p>	<p>Mid-Chapter Checkpoint</p> <p>End of Chapter Assessment</p>	
<p>NF.4 .a Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. a. Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction</p>		<p>Part of a group</p>	<p>GM 7.1</p>	<p>EDULASTIC TEST Combined Chapter 7 & 8 Pretest</p> <p>https://app.edulastic.com/#renderResource/close/Mzg0MjEwODg0NA%3D%3D</p>	<p>15 days</p>

products as rectangular areas.					
		<p>Multiply Fractions and Whole Numbers</p> <p>Fraction and whole number multiplication</p> <p>Multiply Fractions</p> <p>Fraction multiplication</p> <p>Area and mixed numbers</p>	<p>GM 7.2</p> <p>GM 7.3</p> <p>GM 7.4</p> <p>GM 7.6</p> <p>GM 7.7</p>		
<p>NF.5 Interpret multiplication as scaling (resizing), by:</p> <ul style="list-style-type: none"> a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number 		<p>Compare fraction factors and products</p> <p>Compare mixed number factors and products</p> <p>Find unknown lengths</p>	<p>GM 7.5</p> <p>GM 7.8</p> <p>GM 7.10</p>		

<p>(recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given: and relating the principle of a fraction equivalence $a/b = (nxa)/(nxb)$ to the effect of multiplying a/b by 1</p>					
<p>NF.6 Solve real world problems involving multiplication of fractions and mixed numbers e.g., by using visual fraction models or equations to represent the problem</p>		<p>Multiply mixed numbers</p>	<p>GM 7.9</p>		

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<p>CHAPTER 8</p> <p>Numbers & Operations-Fractions</p>	<p>Dividend Equation Fraction Quotient Whole Number</p>	<p>CLUSTERS: Fractions Apply and extend previous understandings of multiplication and division to multiply and divide fractions</p>	<p>Go Math TPT Resource</p>	<p>Mid-Chapter Checkpoint</p> <p>End of Chapter Assessment</p> <p>EDULASTIC TEST Combined Chapter 7 & 8 Pretest https://app.edulastic.com/#renderResource/close/Mzq0MjEwODg0NA%3D%3D</p>	<p>10 days</p>
<p>NF.3 Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p>		<p>Connect Fractions to Divisio</p>	<p>GM 8.3</p>		
<p>NF.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p>		<p>Divide Fractions and Whole Numbers</p> <p>Problem Solving: Use Multiplication</p>	<p>GM 8.1, 8.2, 8.4, 8.5</p>		

a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotient		Fraction and Whole Number Division Interpret Division with Fractions			
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<p>CHAPTER 9</p> <p>Geometry (G)</p>	<p>Data Interval*</p> <p>Line graph*</p> <p>Line Plot</p> <p>Ordered pair*</p> <p>Origin*</p> <p>Scale*</p>	<p>CLUSTERS:</p> <p>Graph points on the coordinate plane to solve real-world and mathematical problems.</p>	<p>Go Math TPT Resource</p>	<p>Mid-Chapter Checkpoint</p> <p>End of Chapter Assessment</p> <p>EDULASTIC TEST</p>	
<p>G.1 Use a pair of perpendicular lines called axes to define a coordinate system with the intersection of the lines (the origin) arranged to coincide with the zero on each line and a given point in the plane located by using an ordered pair of numbers called its coordinates.</p> <p>Understand that the first number indicates how far to travel from the origin in the direction of 1 axis and the second number indicates how far to travel from the origin in another direction of the second axis with the convention that the names of the 2 axis and the coordinates correspond. (eg. x-axis and x-coordinate, y-axis and y coordinate)</p>	<p>X-axis*</p> <p>X-coordinate*</p> <p>Y-axis*</p> <p>Y-coordinate*</p> <p>* introduced</p>	<p>Ordered Pairs</p>	<p>GM 9.2</p>	<p>https://app.edulastic.com/#renderResource/close/MTk2NDY5OTA00Q%3D%3D</p>	<p>12 days</p>

<p>G.2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.</p>		<p>Graph Data</p> <p>Line Graphs</p>	<p>GM 9.3</p> <p>GM 9.4</p>		
<p>Measurement & Data (MD)</p>		<p>CLUSTER: Represent and Interpret Data</p>			
<p>MD. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.</p>		<p>Line Plots</p>	<p>GM 9.1</p>		
<p>Operations & Algebraic Thinking (OA)</p>		<p>CLUSTER: Analyze Patterns and Relationships</p>			
<p>OA.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.</p>		<p>Numerical Patterns</p> <p>Find a Rule</p> <p>Graph and Analyze Relationships</p>	<p>GM 9.5</p> <p>GM 9.6</p> <p>GM 9.7</p>		

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<p>CHAPTER 10</p> <p>Convert Units of Measure</p>	Decimeter Gallon Gram Lenth Liter Mass Meter Mile Milligram Milliliter Millimeter Pound Ton Weight *Capacity *Dekameter * introduced	Domain: Measurement and Data	Go Math TPT Resource	Mid-Chapter Checkpoint End of Chapter Assessment	12 days
CC.5.MD.1 Convert among different-sized standard measurement units within a given measurement system (e.g. convert 5 cm to 0.05 m) and use these conversions in solving multi-step, real world problems.		Customary Length Customary Capacity Weight Multi-Step Measurement Problems Metric Measures Customary and Metric Conversions Elapsed Time	GM 10.1 GM10.2 GM 10.3 GM 10.4 GM 10.5 GM 10.6 GM 10.7	EDULASTIC TEST https://app.edulastic.com/#renderResource/close/Mzg0MDMzOTM3MQ%3D%3D	

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CHAPTER 11 Measurement and Data	*Congruent *Heptagon *Nonagon *Polygon *Regular polygon Decagon Hexagon Octagon Pentagon Quadrilateral Equilateral triangle Isosceles triangle Scalene triangle	Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	Go Math TPT Resource	Mid-Chapter Checkpoint End of Chapter Assessment	20 days
MD.3 Recognize volume as an attribute of solid figures and understand concepts of volume.	Acute triangle Obtuse triangle Right triangle Parallel lines Parallelogram Perpendicular lines Rectangle Rhombus Trapezoid	Three-Dimensional Figures	GM 11.5	EDULASTIC TEST https://app.edulastic.com/#renderResource/close/MjY3NjQyMDAwNQ%3D%3D	
MD.3a A cube with side length 1 unit, called a “unit cube”, is said to have “one cubic unit” of volume, and can be used to measure volume.	*Base Decagonal prism Hexagonal prism *Lateral face Octagonal prism Pentagonal prism Pentagonal pyramid	Investigate: Unit cubes and solid figures	GM 11.6		
MD. 3b A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.	*Polyhedron *Prism *Pyramid *Unit cube Cubic unit *Volume	Investigate: Understand volume	GM 11.7		
MD. 4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.	* introduced	Investigate: Understand volume and Estimate volume	GM 11.7, 11.8		
MD.5. Relate volume to the operation of		Volume of Rectangular Prisms	GM 11.9		

<p>multiplication and addition and solve real world and mathematical problems involving volume.</p> <p>A. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.</p>					
<p>CC.5.MD.5. Relate volume to the operation of multiplication and</p>		<p>Geometric measurement: understand concepts of volume and relate</p>	<p>GM 11.10 11.11</p>		

<p>addition and solve real world and mathematical problems involving volume.</p> <p>B. Apply the formulas $V=l \times w \times h$ and $V=b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.</p>		<p>volume to multiplication and to addition.</p>			
<p>CC.5.MD.5. Relate volume to the operation of multiplication and addition and solve real world and mathematical problems involving volume.</p> <p>C. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.</p>		<p>Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.</p>	<p>11.12</p>		

<p>CC.5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category</p>		<p>Classify two-dimensional figures into categories based on their properties.</p>	<p>GM 11.1 11.2 11.4</p>		
<p>CC.5.G.4 Classify two-dimensional figures in a hierarchy based on properties</p>		<p>Classify two-dimensional figures into categories based on their properties.</p>	<p>GM 11.2 11.3</p>		