



Fifth Grade Mathematics Curriculum Map, Quarter 4, 2020-2021

Quarter 4		
TN Standards	Learning Outcomes	Content Resources
Weeks 1 (5.MD.B.2) Line Plots		
<p>5.MD Measurement and Data B. Represent and interpret data.</p> <p>5.MD.B.2 Make a line plot to display a data set of measurement in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.</p>	<p>Enduring Understandings</p> <ol style="list-style-type: none"> 1. Representing and interpreting data helps analyze information and develop critical thinking skills. 2. Data analysis is formulating questions that can be addressed, explored, and synthesized with relevant information. <p>Essential Questions</p> <ol style="list-style-type: none"> 1. (9-1) How can a line plot help you find an average with data given in fractions? <p>Learning Targets</p> <p>I can create and use a line plot with a given set of unit fraction measurements. I can solve problems using data on a line plot. I can organize data using a line plot to determine the answers. I can explain the strategy I used to solve the problem. I can justify my reasoning. I can write a mathematical representation of the problem and solve it using the model I used to solve the problem. I can use addition and multiplication of fractions and/or mixed numbers to determine the total number of items on the line plot.</p>	<p>*INSTRUCTIONAL FOCUS DOCUMENT FOR TENNESSEE</p> <p>Achieve the Core: Go Math Guidance Documents</p> <p>Go-Math (9-1), Line Plots (5.MD.B.2) MP1, MP2, MP4</p> <p>Mathematical Practices Focus (Students)</p> <ol style="list-style-type: none"> 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. <p>NCTM Effective Teaching Practices</p> <ol style="list-style-type: none"> 1. Establish mathematics goals to focus learning. 2. Implement tasks that promote reasoning and problem solving. 3. Build procedural fluency from conceptual understanding. 4. Pose purposeful questions. 5. Use and connect mathematics representations

6. Facilitate meaningful mathematics discourse.
7. Elicit and use evidence of student thinking.
8. Support productive struggle in learning mathematics.

Literary Math Focus

1. Use multiple reading strategies.
2. Understand and use correct mathematical vocabulary.
3. Discuss and articulate mathematical ideas.
4. Write mathematical arguments.

Vocabulary: data, graph, survey, sample, frequency table, bar graph, picture graph, scale, interval, line plot, line graphs

EngageNY

Module 4

Topic A: Line Plots of Fraction Measurements

Lesson 1

Instructional Tasks:

5.MD.B.2. [Fractions on a Line Plot](#)

Journal Topics:

- How does a line plot show data? How does a line plot compare to a bar graph?
- Reflections on new learning ...How did I do on the learning? What could I do better on in the lesson?

Song-

["Fraction Rock" by Joe Crone](#)

["Fraction Rap" by Gigi Shadid](#)

Slideshow Lesson- [Line Plots](#)

Links:[Study Jams- Math- Line Plots](#)[BrainPop-Math- adding and subtracting fractions](#)[901 Math Videos](#)

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Quarter 4

TN Standards	Learning Outcomes	Content Resources
Week 2 and 3 Review for TN Standards Test		
5.NBT.A.1-4 Understand the place value system	(Review) Learning Targets for TN Standards I can read and write numbers through the millions. I can recognize that each place to the left is 10 times larger and that to the right is 1/10 in a multi-digit number. I can illustrate and explain a pattern for how the number of zeros of a product-when multiplying a whole number by power of 10-relates to the power of 10 (e.g.500-which is 5 x 100, or 5x10 to the second power-has two zeros in its product.)	<i>(Review) Vocabulary for TN Standards:</i> <i>(5.NBT.A.1-4)</i> place value, period, patterns, standard form, expanded form, word form, comma, units, thousands, millions, exponent, base, squared, cubed <i>decimal, decimal place, decimal point, tenths, hundredths, thousandths, compare, greater than, less than, least, between, greatest, number line, before, after, number order</i> EngageNY Module 1: Place Value and Decimal Fractions Topic A: Multiplicative Patterns on the Place Value chart Lesson 1 Lesson 2 Lesson 3 Lesson 4
5.NBT.B.5-7 Perform operations with multi-digit whole numbers and with decimals to hundredths.	I can add and subtract, explain, and illustrate decimals to hundredths using strategies based on place value, properties of operations, or other strategies. I can round decimals, explain, and estimate to any place.	<i>(5.NBT.B.5-7)</i> factors, product, partial products, multiply, multiples, exponent, base, squared, cubed, powers of 10, exponential notation, expanded form, standard form <i>division, dividend, divisor, quotient, divisible, remainder, rounding, truncating</i>

<p>5.NF.A.1-2 Use equivalent fractions as a strategy to add and subtract fractions.</p>	<p>I can explain the standard algorithm for multi-digit whole number and decimal multiplication.</p> <p>I can divide with a one/two-digit divisor and a whole number and decimal dividend.</p> <p>I can select a reasonable solution to a real-world division problem in which a remainder must be considered.</p> <p>I can add and subtract with unlike denominators and simplify my answer.</p> <p>I can use division to change an improper fraction to a mixed number.</p>	<p>EngageNY</p> <p>Topic B: The Standard Algorithm for Multi-Digit Whole Number Multiplication</p> <p>Lesson 3</p> <p>Lesson 4</p> <p>Lesson 5</p> <p>Lesson 6- Lesson 7</p> <p>Lesson 8</p> <p>Lesson 9</p> <p>Topic C: Decimal Multi-Digit Multiplication</p> <p>Lesson 10</p> <p>Lesson 11</p> <p>Lesson 12</p> <p>Topic E: Multiplying Decimals</p> <p>Lesson 11</p> <p>Lesson 12</p> <p><i>(5.NF.A.1-2) fraction, numerator, denominator, mixed numbers, equivalent fractions, common multiple, least common multiple (LCM), least common denominator (LCD), decimals, add/addition, subtract/subtraction, sum, difference, unlike denominator, benchmark fraction, estimate, reasonableness</i></p> <p><i>Fraction, decimal, improper fraction, mixed number, Divide, numerator, denominator</i></p>
<p>5.NF.B.3-5 Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</p>	<p>I can multiply a fraction by a whole number and by a fraction.</p> <p>I can create a story context for problems involving multiplication of a fraction and a whole number or multiplication of two</p>	<p><i>(5.NF.B.3-5) fraction, decimal, multiplication/multiply, product, numerator, denominator, area, divide, simplify, scaling</i></p>

	fractions by interpreting multiplication with whole numbers.	<i>fractions, whole numbers, quotient, multiplication/multiply, division/divide, mixed numbers, product, partition, equal parts</i>
Geometric measurement: understand concepts of volume and relate volume and relate to multiplication and to addition.	<p>I can use the formulas to determine the volume of rectangular prisms.</p> <p>I can decompose an irregular figure into non-overlapping rectangular prisms to find the volume of the irregular shape by finding the sums of the volumes of each of the decomposed prisms.</p> <p>I can solve real world problems involving volume.</p>	<p><i>(5.MD.C.3-5) volume, solid figure, unit cube, multiplication, edge lengths, height, area of base, measurement, rectangular prism, unit, unit cube, overlap, cubic units (cubic cm., cubic in., cubic ft.,) multiplication, edge lengths, height, area of base</i></p> <p>EngageNY Lessons- Module 5: Addition and Multiplication with Volume and Area</p> <hr/> <p><i>(Review) Songs-</i> “Ones, Tens, Hundreds, That’s the Place for Me!” Place Value Song- (Words) “Ones, Tens, Hundreds, That’s the Place for Me!” Place Value Song (Audio) “Line up the Decimals” (Words) “Line up the Decimals” (Audio) “Here We Go Rounding Numbers Today” (Words) “Here We Go Rounding Numbers Today” (Audio) “Let’s Take it to the Right of the Decimal Point” (Words) “Let’s Take it to the Right of the Decimal Point” (Audio) “Rhymes and Times” (Audio) Long Division” (Audio) “Up on the Housetop” (Audio) “Dividing Decimals” by Gigi Shadid “Fraction Rock” by Joe Crone “Fraction Rap” by Gigi Shadid “If You Want to Convert a Fraction to a Percent” by Gigi Shadid “Volume Song” (Audio)</p>
5.OA.A.1-3 Write and interpret numerical	<p>(Review) Learning Targets for TN Standards -I can use the order of operations (pemdas) to</p>	(Review) Vocabulary for TN Standards:

<p>expressions.</p> <p>5.MD.A.1 Convert like measurement units within a given measurement system from a larger unit to a smaller unit.</p> <p>5.G.A.1-2 Graph points on the coordinate plane to solve real-world and mathematical problems</p>	<p>solve an expression. -I <i>can</i> use parentheses, brackets, or braces to group an expression within a multi-step numerical expression. -I <i>can</i> evaluate numerical expressions with parentheses, brackets or braces.</p> <p>-I <i>can</i> convert (change) measurement units within the same measurement system (e.g. 24 inches to 2 feet). -I <i>can</i> measure capacity in customary and metric units. -I <i>can</i> differentiate between units of weight and mass. -I <i>can</i> convert customary and metric units. -I <i>can</i> solve multi-step word problems using measurement conversions.</p> <p>-I <i>can</i> understand integers. -I <i>can</i> graph ordered pairs. -I <i>can</i> find distances on the coordinate plane. I <i>can</i> generate two numerical patterns with the same starting number for tow given rules. -I <i>can</i> explain the relationship between the two numerical patterns by comparing how each pattern grows or by comparing the relationship between each of the corresponding terms from</p>	<p>(5.OA.A.1-3) order of operations, pemdas, parentheses, brackets, exponents, multiplication, division, addition, subtraction, numerical expressions, expressions, equations tables, charts, expressions, corresponding terms, coordinate plane, ordered pairs</p> <p>Song- Pemdas</p> <p>EngageNY Lessons- Module 4 H 32- Interpret and evaluate numerical expressions including the Language of scaling and fraction division (5.OA.1) Module 4 H 33- Create story contexts for numerical expressions and tape diagrams, and solve word problems (5.OA.1 and 2)</p> <p>(Review) Vocabulary for TN Standards: (5.MD.A.1 and 5.MD.B.2) Conversion/convert, metric and customary measurement, liquid volume, mass, length, Millimeter(mm), centimeter(cm), meter(m), Kilometer(km), yard(yd), inch(in), foot(ft), mile(mi), kilogram(kg), liter (L), Milliliter (mL), ounce (oz), pound (lb), cup©, pint(pt), quart(qt), gallon(gal), hour, minute, second, formula, area</p> <p>Song- Measurement</p> <p>EngageNY Lessons- Module 1 A 4- Use exponents to denote powers of 10 with application to metric conversions (5.NBT.3 and 5.MD.1) Module 2 D 15- Solve two step word problems involving measurements and multi-digit multiplication (5.MD.1)</p> <p>(Review) Vocabulary for TN Standards Part 2: (5.G.A.1-2) coordinate system, coordinate plane, first quadrant, points, lines, axis/axes, x-axis, y-axis, horizontal, vertical, intersection of lines, origin, ordered pairs, coordinates, x-coordinate, y-coordinate</p> <p>Song- ordered pairs and 4 quadrants (words)</p>
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<p>5.G.B.3 Classify two-dimensional figures into categories based on their properties.</p>	<p>each pattern. -I can identify the rule to complete the pattern for the table. -I can generate two numerical patterns with the same starting number for two given rules. -I can explain the relationship between the two numerical patterns by comparing how each pattern grows or by comparing the relationship between each of the corresponding terms from each pattern. -I can form ordered pairs out of corresponding terms from each pattern and graph them on a coordinate plane.</p> <p>-I can explain two-dimensional attributes can belong to several two-dimensional figures. -I can identify subcategories using two-dimensional figures. -I can identify subcategories using two-dimensional attributes. -I can group together all shapes that share a single property, and then among these shapes, group together those that share a second property, and then among these, group together those that share a third property.</p>	<p>EngageNY Lessons- Module 6 B 12- Create a rule to generate a number pattern, and plot the points (5.OA.3 and 5.G.1) Module 6 D 20- Use Coordinate systems to solve real world problems (5.G.2)</p> <p>(Review) Vocabulary for TN Standards: (5.G.B.3) polygon, rhombus/rhombi, rectangle, square, triangle, quadrilateral, pentagon, hexagon, cube, trapezoid, half/quarter circle</p> <p>Song- Geometry Park by Joe Crone</p> <p>EngageNY Lessons- Module 5 D 16- Draw trapezoids to clarify their attributes, and define trapezoids based on those attributes. (5.G.3) Module 5 D 17- Draw parallelograms to clarify their attributes, and define parallelograms based on those attributes (5.G.3) Module 5 D 18- Draw rectangles and rhombuses (5.G.3) Module 5 D 21- Draw and identify varied two-dimensional figures from given attributes (5.G.3 and 4)</p>
<p>5.MD.B.2 Make Line Plots and use Operations on Fractions.</p>	<p>-I can create a line plot with a given set of unit fraction measurements. -I can solve problems using data on a line plot. -I can organize data using a line plot.</p>	<p>EngageNY Topic A: Line Plots of Fraction Measurements Lesson 1</p>



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Quarter 4		
TN Standards	Learning Outcomes	Content Resources
Weeks 4-6 TN Standards Testing		



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Quarter 4		
TN Standards	Learning Outcomes	Content Resources
Weeks 7-9 Review and Extend		
	Learning Targets I can review and extend 5 th Grade Skills.	Go Math- Review Projects End of the Year Resources *Review Project: The Forester –Student Resources P B7- Teacher Resources- PG-PG42 *Review Project: Designing Backpacks Student Resources P B11- Teacher Resources PG-PG44 *Review Project: A Space Capsule- Student Resources P B15- Teacher Resources PG-PG46 Getting Ready for Grade 6

Lessons 1-18- Online- PG-PG48-PG86

EngageNY Lessons-

[Module 6 E 21- Make sense of complex, multi-step problem and persevere in solving them. Share and critique peer solutions \(5.NF.2\)\(5.NF.3\)\(5.NF.6\)\(5.NF.7\)](#)

[Module 6 F 28 -Solidify fluency with Grade 5 Skills \(5.NBT.3\)\(5NBT.5\)\(5.NBT.7\)\(5.MD.1\)](#)

[Module 6 F 31 -Explore the Febonacci sequence \(5.G.1 and 2\)](#)

[Module 6 F 32- Explore patterns in saving money \(5.NBT.7\)](#)

[Module 6 F 33- Design and construct boxes to house materials for summer use.](#)

[Module 6 F 34- Design and construct boxes to house materials for summer use.](#)