



Fifth Grade Mathematics Curriculum Map, Quarter 3, 2020-2021

TN Standards	Learning Outcomes	Content Resources
<p>The Major Work of the Grade for TN Standards Assessments are bolded.</p>		<p>Bolded Math Practices are the Math Practices that can be taught with that task.</p>
<p>Week 1 (5.MD.C.3, 5.MD.C.4, and 5.MD.C.4) Volume</p>		
<p>5.MD Measurement and Data (MD) C. Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.</p> <p>5.MD.C.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement.</p> <p style="padding-left: 20px;">a. Understand that 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.</p> <p style="padding-left: 20px;">b. Understand that 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.</p> <p>5.MD.C.4 Measure volume by counting unit cubes, using</p>	<p>Enduring Understandings</p> <ol style="list-style-type: none"> 1. One representation may sometimes be more helpful than another; and, used together multiple representations gave a fuller understanding of a problem. <p>Essential Questions</p> <ol style="list-style-type: none"> 1. (11-5) What is a unit cube and how can you use it to build a solid figure? 2. (11-6) How can you use unit cubes to find the volume of a rectangular prism? 3. (11-7) How can you use an everyday object to estimate the volume of a rectangular prism? 4. (11-8) How can you find the volume of a rectangular prism? 5. (11-9) How can you use a formula to find the volume of a rectangular prism? 6. (11-10) How can you use the strategy Make a Table to compare different rectangular prisms with the same volume? 7. (11-11) How can you find the volume of rectangular prisms that are combined? 	<p>*INSTRUCTIONAL FOCUS DOCUMENT FOR TENNESSEE</p> <p>Achieve the Core: Go Math Guidance Document</p> <p>Go-Math</p> <p>11-5, Investigate-Unit Cubes and Solid Figures (5.MD.C.3a) MP2, MP5, MP6</p> <p>11-6, Investigate-Understand Volume (5.MD.C.3b)(5.MD.C.4) MP3, MP5, MP6</p> <p>11-7, Investigate-Estimate Volume (5.MD.C.4) MP1, MP2, MP6</p> <p>11-8, Volume of Rectangular Prisms (5.MD.C.5a)(5.MD.C.5b) MP1, MP2, MP6</p> <p>11-9, Algebra-Apply Volume Formulas (5.MD.C.5a)(5.MD.C.5b) MP2, MP6</p> <p>11-10, Problem Solving-Compare Volumes (5.MD.C.5b) MP1, MP6, MP7</p> <p>11-11, Find Volume of Composed Figures (5.MD.C.5c) MP3, MP6</p> <p>Mathematical Practices Focus (Students)</p> <ol style="list-style-type: none"> 1. Make sense of problems and persevere in solving them.

cubic centimeters, cubic inches, cubic feet, and improvised units.

5.MD.C.5

Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume of right rectangular prisms.

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 whole-number products of three factors as volumes, (e.g., to represent the associative property of multiplication).

b. Know and apply the formulas $V = l \times w \times h$ and $V = B \times h$ (where B represents the area of the base) 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.

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.

Learning Targets

I can understand unit cubes and how they can be used to build a solid figure.

I can count unit cubes that fill a solid figure to find volume.

I *can* relate finding the product of three numbers to finding volume and relate both to the associative and communicative property of multiplication.

I *can* use the formulas to determine the volume of rectangular prisms ($V = L \times W \times H$ and $V = BA \times H$).

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.

I can turn my concrete model into a written mathematical problem using the standard operations.

I know how adding the same number over and over is related with a multiplication strategy.

I can relate the concrete model I used to solve problems into mathematical representations using numbers and symbols.

I can explain the strategy I used to solve the problem.

I can justify my reasoning.

I can use concrete materials to multiplication problems.

I can create models that explain strategies multiplication problems.

I can write a mathematical representation of the problem and solve it using the model I used to solve the problem.

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.

NCTM Effective Teaching Practices

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.

EngageNY

Module 5: Addition and Multiplication with Volume and Area

Instructional Task:

5.MD.C. [Box of Clay](#)

5.MD.C.5. [Breaking Apart Composite Solids](#)

- [You Can Multiply Three Numbers in Any Order](#)

5.MD.C.5.a. [Using Volume to Understand the Associative Property of Multiplication](#)

5.MD.C.5.b. [Cari's Aquarium](#)

5.MD.C.5.c. [Breaking Apart Composite Solids](#)

Vocabulary: 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

Tools: cubes

More Optional Activities are below:

More Tasks:

Journal Topics:

- Explain how knowing the volume of box could be helpful to a cookie baker? How could the baker determine the volume? Is there another way to determine the volume of the box? Explain.
- Reflections on new learning ...How did I do on the learning? What could I do better on in the lesson?

Song- ["Volume Song"](#) (Audio)

Literature Connection:

[Perimeter, Area, and Volume](#) by David Adler
[The Emperor's Army](#) by Virginia Pilegard

Links:

[Study Jams-Math-Measurement-Volume](#)
[BrainPop-Math- Volumes of Cylinders](#)



Fifth Grade Mathematics Curriculum Map, Quarter 3, 2020-2021

Quarter 3

TN Standards	Learning Outcomes	Content Resources
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Week 2 and 3 (5.G.B.3) Classify Two Dimensional Figures

<p>5.G Geometry B. Classify two-dimensional figures into categories based on their properties.</p> <p>5.G.B.3 Classify two-dimensional figures in a hierarchy based on properties. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.</p>	<p>Enduring Understandings</p> <ol style="list-style-type: none"> 1. Geometric properties can be used to construct geometric figures. 2. Geometric relationships provide a means to make sense of the world around them. <p>Essential Questions</p> <ol style="list-style-type: none"> 1. (11-1) How can you identify and classify polygons? 2. (11-2) How can you classify triangles? 3. (11-3) How can you classify and compare quadrilaterals? <p>Learning Targets</p> <ul style="list-style-type: none"> -I can identify and classify polygons. -I can classify and draw triangles using their properties. -I can classify and compare quadrilaterals using their properties. -I can explain two-dimensional attributes can belong to several two-dimensional figures. 	<p>*INSTRUCTIONAL FOCUS DOCUMENT FOR TENNESSEE</p> <p>Achieve the Core: Go Math Guidance Document</p> <p>Go-Math 11-1, Polygons (5.G.B.3) MP1, MP2, MP5, MP6 11-2, Triangles (5.G.B.3) MP2, MP6, MP7, MP8 11-3, Quadrilaterals (5.G.B.3) MP3, MP7</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>
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-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.
I can understand that a square by definition is a square, parallelogram, rectangle, and a rhombus.
I can understand that by definition a rectangle, rhombus, square, and parallelogram are all parallelograms.
I can understand that by definition a square is a rectangle but a rectangle is not a square.
I can understand that by definition a square is a rhombus but a rhombus is not a square.

1. Establish mathematics goals to focus learning.
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7. Elicit and use evidence of student thinking.
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Literary Math Focus

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***Note that Go Math** uses the following definition for trapezoid- a trapezoid has At Least One Pair of parallel lines. Which by definition means that a trapezoid is also a parallelogram.

****Note that Powerschool Tests** uses the following definition for trapezoid- a trapezoid Only Has One Pair of Parallel lines. Which by definition means that a trapezoid would not be a parallelogram.

EngageNY Module 5

[Topic D](#): Drawing, Analysis, and Classification of Two-Dimensional Shapes

[Lesson 19](#)

[Lesson 20](#)

[Lesson 21](#)

Instructional Task:

5.G.B.3.

- [Always, Sometimes, Never](#)
- [What do these shapes have in Common?](#)

- [What is a Trapezoid? \(Part 2\)](#)

Vocabulary: polygon, rhombus/rhombi, rectangle, square, triangle, quadrilateral, pentagon, hexagon, cube, trapezoid, half/quarter circle, congruent, right angles, obtuse angles, acute angles

More Optional Activities Below:

Journal Topics:-

-The Write Way p.636B

-How are a square and a rhombus alike? Is a square always a rhombus? Is a rhombus a square? Explain.

-What is a quadrilateral? Name all 5 quadrilaterals. How are they alike and how are they different?

-How is a parallelogram different from a rhombus? How are they similar?

-Reflections on new learning ...How did I do on the learning? What could I do better on in the lesson?

Song- [Geometry Park by Joe Crone](#)

Literature Connection: The Greedy Triangle by Marilyn Burns

Slide Show- [2D Shapes](#)

Slide show - [Polygons to Create Prisms/Pyramids](#)

Links:

[Study Jams- Math- Classify Triangles](#)

[Study Jams-Math- Classify Quadrilaterals](#)

[BrainPop-Math-Polygons](#)

[BrainPop-Math- Types of Triangles](#)

[901 Math Videos](#)



Fifth Grade Mathematics Curriculum Map, Quarter 3, 2020-2021

Quarter 3		
TN Standards	Learning Outcomes	Content Resources
Weeks 4 and 5 (5.OA.A.1 and 5.OA.A.2) Write and Interpret Numerical Expressions		
<p>5.OA Operations and Algebraic Thinking (OA) A. Write and interpret numerical expressions</p> <p>5.OA.A.1 Use parentheses and/or brackets in numerical expressions and evaluate expressions having these symbols using the conventional order (Order of Operations).</p> <p>5.OA.A.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$, Recognize that $3 \times (18,932 + 921)$ is three times as large as $18,932 + 921$, without having to calculate the indicated sum or product.</p>	<p>Enduring Understandings</p> <ol style="list-style-type: none"> 1. Algebraic representation can be used to generalize patterns and relationships. 2. Patterns and relationships can be represented graphically, numerically, symbolically, or verbally. 3. The symbolic language of algebra is used to communicate and generalize the patterns in mathematics. <p>Essential Questions</p> <ol style="list-style-type: none"> 1. (1-10) How can you use a numerical expression to describe a situation? 2. (1-11) In what order must operations be evaluated to find the solution to a problem? <p>Learning Targets</p> <p>I can evaluate numerical expressions with parenthesis, brackets, and braces. I <i>can</i> use the order of operations (pemdas- parenthesis, exponents, multiplication, division, addition, and subtraction) to solve an expression. I can write numerical expressions. I can write without solving an order of operations problem using numbers and symbols after reading written phrases. I can explain the strategy I used to solve the problem. I can justify my reasoning.</p>	<p>*INSTRUCTIONAL FOCUS DOCUMENT FOR TENNESSEE</p> <p>Achieve the Core: Go Math Guidance Document</p> <p>Go Math 1-3, Algebra- Properties Delete 1-10, Algebra-Numerical Expressions (5.OA.A.1)(5.OA.A.2) MP3, MP4, MP6 1-11, Algebra-Evaluate Numerical Expressions (5.OA.A.1) MP2, MP3, MP4 1-12, Algebra-Grouping Symbols Delete</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.
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Literary Math Focus

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EngageNY

Module 4 -Topic H

Interpretation of Numerical Expressions

Instructional Tasks:

5.OA.A.

- [Picturing Factors in Different Orders](#)
- [Why Do We Need an Order of Operations?](#)
- [You Can Multiply Three Numbers in Any Order](#)

5.OA.A.1.

- [Bowling for Numbers](#)
- [Using Operations and Parentheses](#)
- [Watch Out for Parentheses 1](#)

5.OA.A.2.

- [Comparing Products](#)
- [Seeing is Believing](#)
- [Video Game Scores](#)
- [Words to Expressions 1](#)

Vocabulary: order of operations, pemdas, parentheses, brackets, exponents, multiplication, division, addition, subtraction, numerical expressions, expressions, equations, factor, product, Distributive Property

More Optional Activities are below:

Journal Topics:

- What is the order of operations and why do we use it? Do we really have to solve the problem in order? Explain why or why not.
- Create a math story problem where the order of operations needs to be followed. Create the problem and solve it.
- How does the story of Strega Nona relate to using the Order of Operations?
- Reflections on new learning ...How did I do on the learning? What could I do better on in the lesson?

Song- [Pemdas](#)

Literature Connection:

[Strega Nona by Tomie dePoala](#)

Slideshow Lesson- [Order of Operations](#)

Links:

- [Study Jams- Math- Order of Operations](#)
- [Study Jams-Math- Addition and Subtraction Equations](#)
- [Study Jams-Math- Multiplication and Division Equations](#)



Fifth Grade Mathematics Curriculum Map, Quarter 3, 2020-2021

Quarter 3

TN Standards	Learning Outcomes	Content Resources
Week 6–(5.OA.B.3) Patterns and Relationships		
<p>5.OA Operations and Algebraic Thinking (OA) B. Analyze patterns and relationships.</p> <p>5.OA.B.3 Generate two numerical patterns using two given rules. For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences.</p> <p>a. Identify relationships between corresponding terms in two numerical patterns. For example, observe that the terms in one sequence are twice the corresponding terms in the other sequence.</p> <p>b. Form ordered pairs consisting of corresponding terms from two numerical patterns and graph the ordered pairs on a coordinate plane.</p>	<p>Enduring Understandings</p> <ol style="list-style-type: none"> 1 Algebraic representation can be used to generalize patterns and relationships. 2 Patterns and relationships can be represented graphically, numerically, symbolically, or verbally. 3 The symbolic language of algebra is used to communicate and generalize the patterns in mathematics. <p>Essential Questions</p> <ol style="list-style-type: none"> 1. (9-5) How can you identify a relationship between two numerical patterns? 2. (9-6) How can you use the strategy Solve a Simpler Problem to help you solve a problem with patterns? 3. (9-7) How can you write and graph ordered pairs on a coordinate grid using two numerical patterns? <p>Learning Targets</p>	<p>*INSTRUCTIONAL FOCUS DOCUMENT FOR TENNESSEE</p> <p>Achieve the Core: Go Math Guidance Document</p> <p>Go-Math 9-5, Numerical Patterns (5.OA.B.3) MP6, MP7, MP8 9-6, Problem Solving-Find a Rule (5.OA.B.3) MP4, MP6, MP7 9-7, Graph and Analyze Relationships (5.OA.B.3) MP4, MP7</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.

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.
I can graph the relationship between two numerical patterns on a coordinate grid
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.

7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

NCTM Effective Teaching Practices

1. Establish mathematics goals to focus learning.
2. Implement tasks that promote reasoning and problem solving.
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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.

EngageNY

Module 6, Topic B

[Patterns in the Coordinate Plane and Graphing Number Patterns from Rules](#)

Instructional Task:

5.OA.B.3. [Sidewalk Patterns](#)

Vocabulary: tables, charts, expressions, corresponding terms, coordinate plane, ordered pairs

Journal Topics:

		<p>-How can you figure out the rule for a function table when you are not given the rule? -How can identifying two pattern using the given rules relate to an Ordered Pair Grid? -Reflections on new learning ...How did I do on the learning? What could I do better on in the lesson?</p> <p>Links: Study Jams- Math- Function Tables 901 Math Videos</p>
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Fifth Grade Mathematics Curriculum Map, Quarter 3, 2020-2021

Quarter 3		
TN Standards	Learning Outcomes	Content Resources
Week 7- (5.G.A.1 and 5.G.A.2) Graph Points on Coordinate Plane		
<p>5.G Geometry A. Graph points on the coordinate plane to solve real-world and mathematical problems</p> <p>5.G.A.1 Graph ordered pairs and label points using the first quadrant of the coordinate plane. Understand that in the ordered pair that the first number indicates the horizontal distance traveled along the x-axis from the origin and the second number indicates the vertical distance traveled along the y axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).</p> <p>5.G.A.2</p>	<p>Enduring Understandings</p> <ol style="list-style-type: none"> 1. Integers are the whole numbers and their opposites where zero is its own opposite. 2. The coordinate system is a scheme that uses two perpendicular number lines intersecting at zero to tell the location of points in the plane. 3. The distance between two points on a number line is the number of unit segment between points. 4. A graph of a linear equation contains all of the points on the coordinate grid whose x- and y- coordinates satisfy the equation. <p>Essential Questions</p>	<p>*INSTRUCTIONAL FOCUS DOCUMENT FOR TENNESSEE</p> <p>Achieve the Core: Go Math Guidance Document</p> <p>Go-Math 9-2, Ordered Pairs (5.G.A.1) MP4, MP6 9-3, Investigate-Graph Data Delete</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.

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.

1. (9-2) How Can you identify and plot points on a coordinate grid?

Learning Targets

I *can* graph points on a coordinate grid when given the ordered pairs.

I can identify the ordered pairs from a coordinate grid for a given point.

I can solve a given pattern and then plot the ordered pairs on a coordinate grid.

I can identify the ordered pairs from a grid, and then determine the pattern that was used to create the ordered pairs.

I can explain the strategy I used to solve the problem.

I can justify my reasoning.

I *can* understand integers.

-I *can* graph ordered pairs.

-I find distances on the coordinate plane.

6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

NCTM Effective Teaching Practices

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2. Implement tasks that promote reasoning and problem solving.
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Literary Math Focus

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EngageNY

Module 6: Problem Solving with Coordinate Planes

[Topic A: Coordinate Systems](#)

[Topic B: Patterns in the Coordinate Plane and Graphing Number Patterns from Rules](#)

Instructional Task:

5.G.A.1. [Battle Ship Using Grid Paper](#)

		<p>5.G.A.2. Meerkat Coordinate Plane Task</p> <p>Vocabulary: 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>Tools: grid paper</p> <p><i>More Optional Activities Below:</i></p> <p>Journal Topics: -If you are given two ordered pairs, how can you tell if they lie on a vertical line or on a horizontal line? -How can identifying two pattern using the given rules relate to an Ordered Pair Grid?</p> <p>-Reflections on new learning ...How did I do on the learning? What could I do better on in the lesson?</p> <p>Song- ordered pairs and 4 quadrants (words)</p> <p>Links: Study Jams- Math- Classify Quidrilaterals BrainPop-Math-Coordinate Planes 901 Math Videos</p>
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Fifth Grade Mathematics Curriculum Map, Quarter 3, 2020-2021

Quarter 3		
TN Standards	Learning Outcomes	Content Resources
Week 8 and 9 (5.MD.A.1) Measurement Conversions		
		*INSTRUCTIONAL FOCUS DOCUMENT FOR

5.MD

Measurement and Data (MD)

A. Convert like measurement units within a given measurement system from a larger unit to a smaller unit.

5.MD.A.1 Convert customary and metric units within a single system by expressing measurements of a **larger unit in terms of a smaller unit**. Use these conversions to solve multi-step real-world problems involving distances, intervals of time, liquid volumes, masses of objects, and money (including problems involving simple fractions or decimals). For example, 3.6 liters and 4.1 liters can be combined as 7.7 liters or 7700 milliliters.

Enduring Understandings

Essential Questions

1. (10-1) How can you compare and convert customary units of length?
2. (10-2) How can you compare and convert customary units of capacity?
3. (10-3) How can you compare and convert customary units of weight?
4. (10-4) How can you solve multistep problems that include measurement conversions?
5. (10-5) How can you compare and convert metric units?
6. (10-6) How can you use the strategy Make a Table to help solve problems about customary and metric conversions?

Learning Targets

I can convert a larger unit to a smaller unit by using multiplication..

I know that kilo is 1,000 times greater than the metric bases meter, liter, and gram.

I know that centi- is 10 times greater than a milli.

I know that deci is 10 times greater than a centi.

I know that the base unit (meter, liter, and gram) is 10 times greater than deci.

I can use the place value system-powers of 10 to help convert different metric units.

I know that there are 4 quarts in a gallon, 2 pints in each quart, 2 cups in each pint, and 8 oz. in a cup.

I know that there are 16 ounces in 1 pound.

I can compare, contrast, and convert customary units of length.

TENNESSEE

[Achieve the Core: Go Math Guidance Document](#)

Go-Math

10-1, Customary Length (5.MD.A.1) **MP1, MP6, MP7**

10-2, Customary Capacity (5.MD.A.1) **MP2, MP4, MP6**

10-3, Weight (5.MD.A.1) **MP1, MP2**

10-4, Multistep Measurement Problems (5.MD.A.1)

MP1, MP4, MP6

10-5, Metric Measure (5.MD.A.1) **MP2, MP6, MP7**

10-6, Problem Solving-Customary and Metric Conversions (5.MD.A.1) **MP2, MP4, MP7**

Mathematical Practices Focus (Students)

1. Make sense of problems and persevere in solving them.
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3. Construct viable arguments and critique the reasoning of others.
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mathematics.

Literary Math Focus

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4. Write mathematical arguments.

Instructional Task:

5.MD.A.1.

- [Converting Fractions of a Unit into a Smaller Unit](#)
- [Minutes and Days](#)

Vocabulary:

Millimeter, centimeter, meter, Kilometer, yard, inch, foot, mile, formula, milliliter, liter, gallon, quart, pint, cup, gram, kilogram, ounce, pound

Tools:

ruler, meter stick, yard stick, weights, scales, metric system, meter, liter, gram, kilo, deci, centi, milli, standard system, gallon, quart, pint, cup, ounce, pound

*Chart- Kangaroos Hop Down Mountains Drinking Chocolate Milk

Journal Topics:

-Explain how the Standard units of measuring distance is related to the metric units of measuring distance?

-Explain how we can use the silly sentence- Kangaroos Hop Down Mountains Drinking Chocolate

		<p>Milk- to help with all Metric Conversions. -Reflections on new learning ...How did I do on the learning? What could I do better on in the lesson?</p> <p>Song- Measurement</p> <p>Literature Connection: Jim and the Beanstalk by Raymond Briggs</p> <p>Slideshow Lesson-Measurement Conversions</p> <p>Links: Study Jams- Math- Customary Units of Length Study Jams-Math- Units of Measure Study Jams-Math- Measure Length Study Jams-Math-Convert Units of Time BrainPop-Math-Customary Units BrainPop-Math-Metric Units 901 Math Videos</p>



Fifth Grade Mathematics Curriculum Map, Quarter 3, 2020-2021

Quarter 3		
TN Standards	Learning Outcomes	Content Resources
Weeks 10 (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.</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>*INSTRUCTIONAL FOCUS DOCUMENT FOR TENNESSEE</p> <p>Achieve the Core: Go Math Guidance Document</p> <p>Go-Math (9-1), Line Plots (5.MD.B.2) MP1, MP2, MP4</p> <p>Mathematical Practices Focus (Students)</p>

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.

Essential Questions

1. (9-1) How can a line plot help you find an average with data given in fractions?

Learning Targets

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.

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.

NCTM Effective Teaching Practices

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

		<p>Lesson 1</p> <p>Instructional Tasks:</p> <p>5.MD.B.2. Fractions on a Line Plot</p> <p>Journal Topics:</p> <p>-How does a line plot show data? How does a line plot compare to a bar graph?</p> <p>-Reflections on new learning ...How did I do on the learning? What could I do better on in the lesson?</p> <p>Song-</p> <p>"Fraction Rock" by Joe Crone</p> <p>"Fraction Rap" by Gigi Shadid</p> <p>Slideshow Lesson- Line Plots</p> <p>Links:</p> <p>Study Jams- Math- Line Plots</p> <p>BrainPop-Math- adding and subtracting fractions</p> <p>901 Math Videos</p>
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Additional Math Tasks:

Additional Lessons-
[Engage NY Modules](#)

K-5 Math Teaching Resources-3rd grade Journals
<http://www.k-5mathteachingresources.com/5th-grade-number-activities.html>

UnPacking the Standards
<http://www.madison-schools.com/Page/111>