

Carrollton Exempted Village School District – Carrollton, Ohio
OHIO COMMON CORE STATE STANDARDS

Curriculum Map

Course Title: 5th Grade Math	1st Nine Weeks	Academic Year: 2013-2014
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Essential Questions for this Nine Weeks:

- 1. What is the rule for multiplying decimals by 10, 100, or 1000?**
- 2. What is the relationship between place value and powers of ten?**
- 3. How do you read and write decimals in standard, expanded, and word form?**
- 4. How do you compare and order decimal numbers?**
- 5. How do you use rounding and benchmark numbers to estimate amounts?**
- 6. How do you use an algorithm to multiply whole numbers?**
- 7. What strategies can you use to divide whole numbers with up to 4-digit dividends and two-digit divisors?**
- 8. How can you use addition, subtraction, multiplication, & division to solve real world problems?**
- 9. How can I evaluate expressions that contain parentheses, brackets, and braces?**
- 10. What strategies can I use to write simple expressions to represent a real world problem?**
- 11. How do I create a graph on a coordinate plane that represents two patterns?**
- 12. How do I add and subtract fractions and mixed numbers with unlike denominators?**

Vocabulary:	Core-Standards	Instructional Strategies and Differentiation	Assessment	Resources
decimal decimal point place value tenths hundredths thousandths	5NBT.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.	Chapter 1 Lesson 1 Chapter 1 Lesson 2 Chapter 2 Lesson 1	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers

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Vocabulary:	Core-Standards	Instructional Strategies and Differentiation	Assessment	Resources
exponent power of 10 tenths hundredths thousandths	5NBT.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.		Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers
expanded form number lines	5.NBT.3a Read and write decimals to thousandths using base-ten numerals, number names, and expanded form.	Chapter 2 Lesson 1	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers
greater than less than equal to >,<>=	5.NBT.3b Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.	Chapter 2 Lesson 3	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers

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Vocabulary:	Core-Standards	Instructional Strategies and Differentiation	Assessment	Resources
round estimate benchmark number model	5.NBT.4 Use place value understanding to round decimals to any place.	Chapter 3 Lesson 2	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers
algorithm area model array factor product multiplication	5.NBT.5 Fluently multiply multi-digit whole numbers using the standard algorithm. Up to 3-digit by 2-digit	Chapter 7 Lesson 1-3	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers
review vocabulary previously taught	5.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.	Chapter 9 Chapter 10	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers

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Vocabulary:	Core-Standards	Instructional Strategies and Differentiation	Assessment	Resources
review vocabulary previously taught	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.	Chapter 3 Lesson 5 Chapter 8 Lesson 1-5 Chapter 11 – Lesson 1-3	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers
parentheses brackets braces expressions evaluate	5.OA.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	Chapter 12 Lesson 2	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers
review vocabulary previously taught	5.OA.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.	Chapter 12 Lesson 1	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers

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Vocabulary:	Core-Standards	Instructional Strategies and Differentiation	Assessment	Resources
review vocabulary previously taught	5.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.	Chapter 12 Lesson 4 Chapter 23 Lesson 1	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers
multiples numerator denominator mixed numbers factors simplest form improper fraction	5.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 sum or difference of fractions with like denominators. For example, $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$. (In general, $\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}$.)	Chapter 13 Lesson 1-3	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers

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Curriculum Map

Course Title: 5th Grade Math	2nd Quarter	Academic Year: 2013-2014
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Essential Questions for this Quarter:

- 1. How can I use my knowledge of fractions to solve real world problems?**
- 2. How do you interpret a fraction as a division problem?**
- 3. How can I multiply a fraction by a whole number and a fraction?**
- 4. How can I find the area of a rectangle with fractional side of lengths?**
- 5. How does multiplying a fraction by a whole number change the size of an area?**
- 6. How does multiplying a mixed number by a whole number or fraction change the size of an area?**

Vocabulary:	Core-Standards	Instructional Strategies and Differentiation	Assessment	Resources
Review vocabulary previously taught	5.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. For example, recognize an incorrect result $2/5 + 1/2 = 3/7$, by observing that $3/7 < 1/2$.	Chapter 16 Lesson 2 Chapter 16 Lesson 3 Chapter 16 Lesson 4 Chapter 16 Lesson 5	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers

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<p>Review vocabulary previously taught</p>	<p>5.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>Chapter 15 Lesson 6</p> <p>Chapter 19 Lesson 1 Chapter 19 Lesson 2 Chapter 19 Lesson 3</p>	<p>Chapter Tests Centers Probes Hands on Activities</p>	<p>Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers</p>
<p>Review vocabulary previously taught</p>	<p>5.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> <p>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</p>	<p>Chapter 18 Lesson 1 Chapter 18 Lesson 2</p>	<p>Chapter Tests Centers Probes Hands on Activities</p>	<p>Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers</p>

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<p>Area Rectangle</p>	<p>5.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a Fraction 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 products as rectangular areas.</p>	<p>Chapter 26 Lesson 2</p>	<p>Chapter Tests Centers Probes Hands on Activities</p>	<p>Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers</p>
<p>Scaling Resizing</p>	<p>5.NF.5 Interpret multiplication as scaling (resizing), by: a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without the indicated multiplication.</p>	<p>Chapter 28 Lesson 4</p>	<p>Chapter Tests Centers Probes Hands on Activities</p>	<p>Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers</p>

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	<p>5.NF.5 Interpret multiplication as scaling (resizing), by:</p> <p>b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number 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 number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.</p>		<p>Chapter Tests Centers Probes Hands on Activities</p>	<p>Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers</p>
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Curriculum Map

Course Title: 5th Grade Math	3rd Nine Weeks	Academic Year: 2013-2014
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Essential Questions for this Nine Weeks:

- 1. How can I use my knowledge of multiplication of fractions, mixed numbers and whole numbers to solve real world problems?**
- 2. How can I divide unit fractions by whole numbers and whole numbers by unit fractions, given a story context?**
- 3. How can I create a story context that requires the division of a unit fraction?**
- 4. How can I use multiplication and division to convert measurements within a system to solve multi-step real world problems?**
- 5. How can I create a line plot to display measurement data in fractions?**
- 6. How can I use unit cubes to model the volume of a solid?**
- 7. How can I explain the relationship between three different strategies for finding the volume of a right rectangular prism?**
- 8. How can I apply the formulas for finding the volume of a right rectangular prism to solve real world problems?**
- 9. How does volume change when two non-overlapping rectangular prisms are added?**

Vocabulary	Core-Standards	Instructional Strategies and Differentiation	Assessment	Resources
review vocabulary previously taught	5.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.	Chapter 18 Lesson 1-4	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers

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Vocabulary	Core-Standards	Instructional Strategies and Differentiation	Assessment	Resources
unit fraction	5.NF.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients.	Chapter 19 Lesson 1-4	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers
review vocabulary previously taught	5.NF.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. b. Interpret division of a whole number by a unit fraction, and compute such quotients.	Chapter 19 Lesson 1-4	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers
review vocabulary previously taught	5.NF.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit reactions, e.g., by using visual fraction models and equations to represent the problem.	Chapter 19 Lesson 1-4	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers

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<p>relative size liquid volume mass length kilometer meter centimeter kilogram gram liter milliliter inch foot yard mile ounce pound cup pint quart gallon hour minute second /sec. conversion conversion factor</p>	<p>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.</p>	<p>Chapter 24 Lesson 1-6</p>	<p>Chapter Tests Centers Probes Hands on Activities</p>	<p>Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers</p>
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line plot	5. MD.2 Make a line plot to display a data set of measurements 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.		Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers
cubic unit attribute	5. MD.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement. a. 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.	Chapter 27 Lesson 3 Chapter 27 Lesson 5	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers
review vocabulary previously taught	5. MD.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement. b. A solid which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.	Lesson 27 Lesson 3 Chapter 27 Lesson 4 Chapter 27 Lesson 5	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers

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<p>review vocabulary previously taught</p>	<p>5.MD.4 Measure volumes by counting unit cubes, using cubic cm, cubic in. , cubic ft. , and improvised units</p>	<p>Lesson 27 Lesson 3 Chapter 27 Lesson 4 Chapter 27 Lesson 5</p>	<p>Chapter Tests Centers Probes Hands on Activities</p>	<p>Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers</p>
<p>right rectangular prism</p>	<p>5.MD.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. 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 times the area of the base. Represent threefold whole number products as volumes</p>	<p>Lesson 27 Lesson 3 Chapter 27 Lesson 4 Chapter 27 Lesson 5</p>	<p>Chapter Tests Centers Probes Hands on Activities</p>	<p>Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers</p>

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<p>review vocabulary previously taught</p>	<p>5.MD.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. b. Apply the formula $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find the volume of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems.</p>	<p>Lesson 27 Lesson 3 Chapter 27 Lesson 4 Chapter 27 Lesson 5</p>	<p>Chapter Tests Centers Probes Hands on Activities</p>	<p>Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers</p>
<p>review vocabulary previously taught</p>	<p>5.MD.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. 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>Lesson 27 Lesson 3 Chapter 27 Lesson 4 Chapter 27 Lesson 5</p>	<p>Chapter Tests Centers Probes Hands on Activities</p>	<p>Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers</p>

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Curriculum Map

Course Title: 5th Grade Math	4th Quarter	Academic Year: 2013-2014
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Essential Questions for this Quarter:

- 1. How can I plot ordered pairs in the first quadrant on a coordinate plane?**
- 2. How can I plot points in the first quadrant of a coordinate plane to represent real world and mathematical problems?**
- 3. How can I analyze the attributes of two-dimensional figures to classify them into categories and subcategories?**
- 4. How can I classify two-dimensional figures in a hierarchy based on properties?**

Vocabulary	Core-Standards	Instructional Strategies and Differentiation	Assessment	Resources
<ul style="list-style-type: none"> • polygon • quadrilateral • rectangle • rhombus • triangle • right triangle • trapezoid • two-dimensional figure • parallelogram • pentagon, square • hexagon • octagon • plane • perpendicular • parallel • line segment 	<p>5.G.1 Use a pair of Perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond.</p>	<p>Chapter 23 Lesson 1-3</p>	<p>Chapter Tests Centers Probes Hands on Activities</p>	<p>Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers</p>

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Review previously taught vocabulary	5.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.		Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers
Review previously taught vocabulary	5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.	Chapter 21 Lesson1 Chapter 21 Lesson 2	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers
Review previously taught vocabulary	5.G.4 Classify two dimensional figures in a hierarchy based on properties.	Chapter 21 Lesson 1 Chapter 22 Lesson 2 Chapter 20 Lesson 3 Chapter 20 Lesson 4	Chapter Tests Centers Probes Hands on Activities	Discovery Ed Harcourt Math – Ohio Edition Pinterest Teacher Pay Teachers

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