



School District of Horicon

Course Outline

Learning Targets

5th Grade Math	
Expressions, Equations & Volume	
<ul style="list-style-type: none"> • The student can solve equations and evaluate expressions involving parentheses, brackets, and braces (M.5.OA.A.1) • The student can solve problems using the order of operations (M.5.OA.A.1) • The student can write and interpret numerical expressions (M.5.OA.A.2) • The student can divide whole numbers and illustrate and explain my calculations (M.5.NBT.B.6) • The student can define volume and understand that it is a characteristic of solid figures (M.5.MD.C) • The student can understand the volume of unit cubes and how they can be used to measure volume (M.5.MD.C) • The student can relate the volume of a solid figure with how many unit cubes can be packed inside (M.5.MD.C) • The student can measure volume by counting unit cubes. The student can use different units of measure to record volume (M.5.MD.C) • The student can find the volume of a right rectangular prisms using unit cubes and then relating that strategy to multiplication (M.5.MD.C) • The student can use formulas to find the volume of rectangular prisms in real world and mathematical problems (M.5.MD.C) • The student can find the volume of two non-overlapping right rectangular prisms and add them together to find the volume of the whole right rectangular prism (M.5.MD.C) 	
Adding & Subtracting Fractions	
<ul style="list-style-type: none"> • The student can add and subtract fractions with unlike denominators (M.5.NF.A) • The student can use equivalent fractions as a strategy to add and subtract fractions.(M.5.NF.A) • The student can add and subtract mixed numbers with unlike denominators (M.5.NF.A) • The student can solve word problems involving addition and subtraction of fractions that refer to the same whole (M.5.NF.A) • The student can use benchmark fractions to estimate and check if their answer is reasonable (M.5.NF.A) • The student can apply and extend previous understandings of multiplication and division to multiply and divide fractions (M.5.NF.B) • The student can understand that fractions are division problems and interpret fractions as division (M.5.NF.B) • The student can solve problems that requires them to divide whole numbers with fractions as part of the answer (M.5.NF.B) • The student can multiply fractions by whole numbers and whole numbers by fractions (M.5.NF.B) • The student can multiply fractions by fractions (M.5.NF.B) • The student can use visual fraction models to represent fraction multiplication (M.5.NF.B) • The student can solve real world problems involving multiplication of fractions and mixed numbers (M.5.NF.B) 	

- The student can divide unit fractions by whole numbers greater than 1 (M.5.NF.B)

Place Value & Decimals

- The student can identify and explain the place value of a digit in a number (M.5.NBT.A)
- The student can recognize and explain adjacent place value (M.5.NBT.A)
- The student can multiply and divide by the powers of 10 (M.5.NBT.A)
- The student can explain patterns found when multiplying by the power of 10 (M.5.NBT.A)
- The student can explain patterns in the placement of the decimal point when multiplying and dividing by the power of 10 (M.5.NBT.A)
- The student can determine where to place the decimal point when a decimal is multiplied or divided by the power of 10 (M.5.NBT.A)
- The student can read, write and compare decimals to the thousandths (M.5.NBT.A)

Multiplying and Dividing Whole Numbers and Decimals

- The student can solve equations and evaluate expressions involving parentheses, brackets, and braces (M.5.OA.A.1)
- The student can write and interpret numerical expressions (M.5.OA.A.2)
- The student can multiply multi-digit whole numbers using strategies or algorithms based on place value, area models, and the properties of operations (M.5.NBT.B.5)
- The student can divide whole numbers and illustrate and explain their calculations (M.5.NBT.B.6)
- The student can add and subtract decimals, use models, drawings, or other strategies to explain reasoning (M.5.NBT.B.7)
- The student can multiply and decimals, use models, drawings, or other strategies to explain reasoning (M.5.NBT.B.7)
- The student can convert measurements units within the same measurement system (M.5.MD.A.1)

Multiplying and Dividing Fractions

- The student can multiply fractions by whole numbers and whole numbers by fractions (M.5.NF.B)
- The student can multiply fractions by fractions (M.5.NF.B)
- The student can solve real world problems involving multiplication of fractions and mixed numbers (M.5.NF.B)
- The student can find the area of a rectangle with sides that are fractional lengths (M.5.NF.B)
- The student can represent fraction products as rectangular areas (M.5.NF.B)
- The student can determine what happens to a number when: Multiply it by a fraction greater than 1. Multiply it by a fraction less than 1. Multiply it by a fraction equal to 1. (M.5.NF.B)
- The student can divide unit fraction by whole numbers greater than zero (M.5.NF.B)
- The student can solve real word problems involving division of unit fractions and whole numbers (M.5.NF.B)

Graphing, Geometry, and Volume

- The student can complete numerical patterns using two given rules (5.OA.3)
- The student can identify relationships between terms found in pattern (5.OA.3)
- The student can form and graph ordered pairs using corresponding terms from two patterns (5.OA.3)
- The student can explain patterns in the placement of the decimal point when multiplying or dividing decimals by a power of 10 (M.5.NBT.A.2)
- The student can divide whole numbers and illustrate and explain their calculations (M.5.NBT.B.6)

- The student can add and subtract decimals. They can use models, drawings, or other strategies to explain my reasoning (M.5.NBT.B.7)
- The student can multiply fractions by fractions (M.5.NF.B)
- The student can find the area of a rectangle with sides that are fractional lengths (M.5.NF.B)
- The student can represent fraction products as rectangular areas (M.5.NF.B)
- The student can use formulas to find the volume of rectangular prisms in real world and mathematical problems (M.5.MD.C)
- The student can solve real world problems involving multiplication of fractions and mixed numbers (M.5.NF.B)
- The student can find the volume of a right rectangular prisms using unit cubes and then relating that strategy to multiplication (M.5.MD.C)
- The student can find the volume of two non-overlapping right rectangular prisms and add them together to find the volume of the whole right rectangular prism (M.5.MD.C)
- The student can form and graph ordered pairs using corresponding terms from two patterns (5.OA.3)
- The student can understand ordered pairs and how to graph them on coordinate grids (M.5.G.A.2)
- The student can interpret real world data and graph that data in the first quadrant of a coordinate plane (M.5.G.A.2)
- The student can define two-dimensional shapes based on their attributes (M.5.G.B.3)
- The student can classify 2-D shapes according to common attributes from broad to specific (M.5.G.B.3)
- The student can classify and organize 2-D shapes in hierarchies (M.5.G.B.4)

Division and Decimals

- The student can solve equations and evaluate expressions involving parentheses, brackets, and braces (M.5.OA.A.1)
- The student can recognize and explain adjacent place value (M.5.NBT.A)
- The student can multiply and divide by the powers of 10 (M.5.NBT.A)
- The student can explain patterns found when multiplying by the power of 10 (M.5.NBT.A)
- The student can use exponents to write powers of 10 (M.5.NBT.A)
- The student can divide whole numbers and illustrate and explain their calculations (M.5.NBT.B.6)
- The student can multiply and decimals, use models, drawings, or other strategies to explain reasoning (M.5.NBT.B.7)
- The student can divide unit fraction by whole numbers greater than zero (M.5.NF.B)

Students will be able to meet the learning targets above as evidenced by formative and summative classroom assessments.