

2017 - 2018

5th Grade Math – Unit 1

Dates: Aug 1st- Aug 25th

Topic A- F

- 5.M.1 Convert among different-sized standard measurement units within a given measurement system, and use these conversions in solving multi-step real-world problems. ***This module focuses on metric conversions associated with powers of 10.***
- 5.NS.4 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.
- 5.NS.3 Recognize the relationship 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 inversely, a digit in one place represents 1/10 of what it represents in the place to its left.
- 5.NS.5 Use place value understanding to round decimal numbers up to thousandths to any given place value.
- 5.NS.1 Use a number line to compare and order fractions, mixed numbers, and decimals to thousandths. Write the results using $>$, $=$, and $<$ symbols.
- 5.C.1 Multiply multi-digit whole numbers fluently using a standard-algorithmic approach.
- 5.C.2 Find whole-number quotients and remainders 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. Describe the strategy and explain the reasoning used.
- 5.AT.1 Solve real-world problems involving multiplication and division of whole numbers (e.g., by using equations to represent the problem). In division problems that involve a remainder, explain how the remainder affects the solution to the problem.
- **5.NS.1 Use a number line to compare and order fractions, mixed numbers, and decimals to thousandths. Write the results using $>$, $=$, and $<$ symbols. (Not in Eureka Curriculum)**

2017 - 2018

5th Grade Math – Unit 2

Dates: Aug 28th- Oct 27th

Topic A- H

- 5.M.1 Convert among different-sized standard measurement units within a given measurement system, and use these conversions in solving multi-step real-world problems.
- 5.C.3 Compare 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.
- 5.NS.4 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.
- 5.NS.3 Recognize the relationship 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 inversely, a digit in one place represents $1/10$ of what it represents in the place to its left.
- 5.C.8 Add, subtract, multiply, and divide decimals to hundredths, using models or drawings and strategies based on place value or the properties of operations. Describe the strategy and explain the reasoning.
- 5.AT.5 Solve real-world problems involving addition, subtraction, multiplication, and division with decimals to hundredths, including problems that involve money in decimal notation (e.g., by using equations to represent the problem).
- 5.NS.5 Use place value understanding to round decimal numbers up to thousandths to any given place value.
- 5.C.9 Evaluate expressions with parentheses or brackets involving whole numbers using the commutative properties of addition and multiplication, associative properties of addition and multiplication, and distributive property.

2017 - 2018

5th Grade Math – Unit 3

Dates: Oct 30th - Dec 1st

Topics A- D

- 5.C.4 Add and subtract fractions with unlike denominators, including mixed numbers.
- 5.AT.2 Solve real-world problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators (e.g., by using visual fraction models and equations to represent the problem). Use benchmark fractions and number sense of fractions to estimate mentally and assess whether the answer is reasonable.

2017 - 2018

5th Grade Math – Unit 4

Dates: Dec 4th- Feb 5th

• ***Topic A- H***

- 5.AT.2 Solve real-world problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators (e.g., by using visual fraction models and equations to represent the problem). Use benchmark fractions and number sense of fractions to estimate mentally and assess whether the answer is reasonable.
- 5.AT.3 Solve real-world problems involving multiplication of fractions, including mixed numbers (e.g., by using visual fraction models and equations to represent the problem).
- 5.C.8 Add, subtract, multiply, and divide decimals to hundredths, using models or drawings and strategies based on place value or the properties of operations. Describe the strategy and explain the reasoning.
- 5.DS.1 Formulate questions that can be addressed with data and make predictions about the data. Use observations, surveys, and experiments to collect, represent, and interpret the data using tables (including frequency tables), line plots, bar graphs, and line graphs. Recognize the differences in representing categorical and numerical data.
- 5.M.1 Convert among different-sized standard measurement units within a given measurement system, and use these conversions in solving multi-step real-world problems.
- 5.NS.2 Explain different interpretations of fractions, including as parts of a whole, parts of set, and division of whole numbers by whole numbers.
- 5.C.5 Use visual fraction models and numbers to multiply a fraction by a fraction or a whole number.
- 5.C.6 Explain why multiplying a positive number by a fraction greater than 1 results in a product greater than the given number. Explain why multiplying a positive number by a fraction less than 1 results in a product smaller than the given number. Relate the principle of fraction equivalence, $a/b = (n \times a)/(n \times b)$, to the effect of multiplying a/b by 1.
- 5.AT.3 Solve real-world problems involving multiplication of fractions, including mixed numbers (e.g., by using visual fraction models and equations to represent the problem).
- 5.C.3 Compare 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.
- 5.C.9 Evaluate expressions with parentheses or brackets involving whole numbers using the commutative properties of addition and multiplication, associative properties of addition and multiplication, and distributive property.
- 5.C.7 Use visual fraction models and numbers to divide a unit fraction by a non-zero whole number and to divide a whole number by a unit fraction.
- 5.AT.4 Solve real-world problems involving division of unit fractions by non-zero whole numbers, and division of whole numbers by unit fractions (e.g., by using visual fraction models and equations to represent the problem).
- 5.NS.6: Understand, interpret, and model percent's as part of a hundred (e.g. by using pictures, diagrams, and other visual models).
- **5.NS.6: Understand, interpret, and model percents as part of a hundred (e.g. by using pictures, diagrams, and other visual models). (Not in Eureka Curriculum)**

Consider using the following along with additional material(s):

Correlating Tenmarks Lessons (6th Grade Lessons):

- 6.RP.3c: Percent Relationships
- 6.RP.3c: Expressing Percent's as Fractions, Decimals, and by using Models

- 2017 - 2018
- 5th Grade Math – Unit 5
- Dates: Feb 6th- March 7th

Topic A- F

- 5.G.2 Identify and classify polygons including quadrilaterals, pentagons, hexagons, and triangles (equilateral, isosceles, scalene, right, acute, and obtuse) based on angle measures and sides. Classify polygons in a hierarchy based on properties.
- 5.G.1 Identify, describe, and draw triangles (right, acute, obtuse) and circles using appropriate tools (e.g., ruler or straightedge, compass and technology). Understand the relationship between radius and diameter.
- 5.M.1 Convert among different-sized standard measurement units within a given measurement system, and use these conversions in solving multi-step real-world problems.
- 5.M.2 Find the area of a rectangle with fractional side lengths by modeling 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. Multiplying fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
- 5.M.3 Develop and use formulas for the area of triangles, parallelograms, and trapezoids. Solve real-world and other mathematical problems that involve perimeter and area of triangles, parallelograms and trapezoids, using appropriate units for measures.
- 5.M.4 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 or multiplying the height by the area of the base.
- 5.M.5 Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for right rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths to solve real-world problems and other mathematical problems.
- 5.M.6 Find volumes of solid figures composed two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real-world problems and other mathematical problems.
- 5.AT.3 Solve real-world problems involving multiplication of fractions, including mixed numbers (e.g., by using visual fraction models and equations to represent the problem).
- 5.C.5 Use visual fraction models and numbers to multiply a fraction by a fraction or a whole number.
- **5.G.2 Identify and classify polygons including quadrilaterals, pentagons, hexagons, and triangles (equilateral, isosceles, scalene, right, acute, and obtuse) based on angle measures and sides. Classify polygons in a hierarchy based on properties. (Not in Eureka Curriculum)**
- **5.G.1 Identify, describe, and draw triangles (right, acute, obtuse) and circles using appropriate tools (e.g., ruler or straightedge, compass and technology). Understand the relationship between radius and diameter.(Not in Eureka Curriculum)**

Consider using the following:

Eureka (4th Grade Lessons)

- **Lesson 13:** Objective: Analyze and Classify Triangles Based on Side Length, Angle Measure, or Both
- **Lesson 14:** Objective: Define and Construct Triangles from Given Criteria. Explore Symmetry in Triangles
- **Lesson 15:** Objective: Classify Quadrilaterals Based on Parallel and Perpendicular Lines and the Presence or Absence of Angles of a Specified Size
 - **TenMarks (4th Grade Lessons)**
 - 4.G.2: Classifying Shapes by Perpendicular and Parallel Sides and Right Angles

2017 - 2018

5th Grade Math – Unit 6

Dates: March 8th- May 11th

Topic A- F

- 5.AT.1 Solve real-world problems involving multiplication and division of whole numbers (e.g. by using equations to represent the problem). In division problems that involve a remainder, explain how the remainder affects the solution to the problem.
- 5.AT.6 Graph points with whole number coordinates on a coordinate plane. Explain how the coordinates relate the point as the distance from the origin on each 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).
- 5.AT.7 Represent real-world problems and equations by graphing ordered pairs in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
- 5.AT.8: Define and use up to two variables to write linear expressions that arise from real-world problems, and evaluate them for given values.
- 5.DS.2: Understand and use measures of center (mean and median) and frequency (mode) to describe a data set
- **5.DS.2: Understand and use measures of center (mean and median) and frequency (mode) to describe a data set need to be covered in this Module. (Not in Eureka Curriculum)**
- **5.AT.8: Define and use up to two variables to write linear expressions that arise from real-world problems, and evaluate them for given values. (Not in Eureka Curriculum)**