Curriculum Map - Mathematics - Illustrative Math 6

Textbook Information

Name of Textbook: Envision Math

Unit	Benchmarks	Content/Skills	Assessments
Trimester 1			
Math Review Weeks 1-4) *(updated 9/22/23)*	MA.6.NSO.2.1(A) Multiply and divide positive multi-digit numbers with decimals to the thousandths, including using a standard algorithm with procedural fluency. MA.6.NSO.2.2(A) Extend previous understanding of multiplication and division to compute products and quotients of positive fractions by positive fractions, including mixed numbers, with procedural fluency. MA.6.NSO.2.3(A) Solve multi-step real-world problems involving any of the four operations with positive multi-digit decimals or positive fractions, including mixed numbers. MA.6.NSO.3.1(A) Given a mathematical or real-world context, find the greatest common factor and least common multiple of two whole numbers. MA.6.NSO.3.2(A) Rewrite the sum of two composite whole numbers having a common factor, as a common factor multiplied by the sum of two whole numbers. MA.6.NSO.3.3(A) Evaluate positive rational numbers and integers with natural number exponents. MA.6.NSO.3.4(A) Express composite whole numbers as a product of prime factors with natural number exponents. MA.6.NSO.3.5(A) Rewrite positive rational numbers in different but equivalent forms including fractions, terminating decimals and percentages. MA.6.NSO.4.1(A) Apply and extend previous understandings of operations with whole numbers to add and subtract integers with procedural fluency. MA.6.NSO.4.2(A) Apply and extend previous understandings of operations with whole numbers to multiply and divide integers with procedural fluency. MA.6.AR.1.1(A) Given a mathematical or real-world context, translate written descriptions into algebraic expressions and translate algebraic expressions into written descriptions. MA.6.GR.2.1(A) Derive a formula for the area of a right triangle using a rectangle. Apply a formula to find the area of a triangle. MA.6.GR.2.2(A) Solve mathematical and real-world problems involving the area of quadrilaterals and composite figures by decomposing them into triangles or rectangles. MA.6.GR.2.3(A) Solve mathematical and real-world problems involving the volume of right rectangular prisms with positive rational number edge lengths using a visual model and a formula. MA.6.GR.2.4(A) Given a mathematical or real-world context, find the surface area of right rectangular prisms and right rectangular pyramids using the figure's net.	Adding and subtracting whole numbers and money; Fact families; Multiplying and dividing whole numbers and money; Fact families 2; Unknown numbers in addition and subraction; Unknown numbers in multiplication and division; Order of operations 1; Fractional parts; Lines, segments, rays; Linear measure; Perimeter; Number line ordering and comparing; Sequences; Scales	Investigarion 1 - Frequency Tables - Histograms - Surveys

Unit 1 - Area and Surface Area / Weeks 5-7.5 *(updated 9/22/23)*	MA.6.GR.2.2(A) Solve mathematical and real-world problems involving the area of quadrilaterals and composite figures by decomposing them into triangles or rectangles. MA.6.GR.2.4(A) Given a mathematical or real-world context, find the surface area of right rectangular prisms and right rectangular pyramids using the figure's net.	Problems about comparing and separating; Place value through trillions; Multistep problems; Elapsed time problems; Number line-negative numbers; Problems about equal groups; Rounding whole numbers; Estimating; Number line-fractions and mixed numbers; Average; Line graphs; Factors; Prime numbers; Greatest common factor	Investigation 2 - Investigation Fractions with Manipulatives
Unit 2 - Introducing Ratios / Weeks 9-10 *(updated 9/22/23)*	MA.6.AR.1.1(A) Given a mathematical or real-world context, translate written descriptions into algebraic expressions and translate algebraic expressions into written descriptions. MA.6.AR.3.1(A) Given a real-world context, write and interpret ratios to show the relative sizes of two quantities using appropriate notation: aabb, aa to bb, or aa:bb where bb does not equal 0. MA.6.AR.3.2(A) Given a real-world context, determine a rate for a ratio of quantities with different units. Calculate and interpret the corresponding unit rate. MA.6.AR.3.3(A) Extend previous understanding of fractions and numerical patterns to generate or complete a two- or three-column table to display equivalent part-to-part ratios and part-to-part-to-whole ratios.	Divisibility; Equal groups problems and fractions; Ratio; Rate; Adding and subtracting fractions with common denominator; Writing division answers as mixed numbers; Multiples; Using manipulatives to reduce fractions; Adding and stracting mixed numbers; Measures of a circle; Angles; Multiplying fractions; Reducing fractions by dividing common factors; Least common multiple; Reciprocals	Investigation 3 - Measuring and Drawing Angles with a Protractor
Unit 3 - Rates and Percentages / Weeks 11-12 *(updated 9/22/23)*	MA.6.AR.3.5(A) Solve mathematical and real-world problems involving ratios, rates and unit rates, including comparisons, mixtures, ratios of lengths and conversions within the same measurement system.	Areas of rectangles; Expanded notation; More on elapsed time; Writing percents as fractions; Decimal place value; Writing decimal numbers as fractions 1; Reading and writing decimals; Subtracting fractions and mixed numbers from whole number; Adding and subracting decimals; Adding and subracting decimals and whole numbers; Squares and square roots; Multiplying decimals; Using zero as placeholder; Circle graphs	Investigation 4 - Collecting, Organizing, Displaying, and Interpreting Data
Unit	**Benchmarks**	**Content/Skills**	**Assessments**
Trimester 2			
Unit 4 - Dividing Fractions / Weeks 13-14 *(updated 9/22/23)*	MA.6.NSO.2.1(A) Multiply and divide positive multi-digit numbers with decimals to the thousandths, including using a standard algorithm with procedural fluency. MA.6.NSO.2.2(A) Extend previous understanding of multiplication and division to compute products and quotients of positive fractions by positive fractions, including mixed numbers, with procedural fluency. MA.6.NSO.2.3(A) Solve multi-step real-world problems involving any of the four operations with positive multi-digit decimals or positive fractions, including mixed numbers. MA.6.NSO.3.1(A) Given a mathematical or real-world context, find the greatest common factor and least common multiple of two whole numbers. MA.6.NSO.3.2(A) Rewrite the sum of two composite whole numbers having a common factor, as a common factor multiplied by the sum of two whole numbers. MA.6.AR.3.4(A) Apply ratio relationships to solve mathematical and real-world problems involving percentages using the relationship between two quantities. MA.6.AR.3.5(A) Solve mathematical and real-world problems involving ratios, rates and unit rates, including comparisons, mixtures, ratios of lengths and conversions within the same measurement system.	Finding percent; Renaming fraction by multiplying by 1; Equivalent division problems; Finding unknowns in fractions and decimal problems; Simplifying decimals; Comparing decimals; Dividing decimals by whole number; Decimals in expanded notation; Mental multiplying of decimals by 10 and 100; Circumference; Pi; Subtracting mixed numbers with regrouping; Dividing by decimal; Decimal number line; Dividing by a fraction	Investigation 5 - Displaying Data

Unit 5 - Base Ten / Weeks 15-17 *(updated 9/22/23)*	MA.6.NSO.2.1(A) Multiply and divide positive multi-digit numbers with decimals to the thousandths, including using a standard algorithm with procedural fluency. MA.6.NSO.2.2(A) Extend previous understanding of multiplication and division to compute products and quotients of positive fractions by positive fractions, including mixed numbers, with procedural fluency. MA.6.NSO.2.3(A) Solve multi-step real-world problems involving any of the four operations with positive multi-digit decimals or positive fractions, including mixed numbers. MA.6.NSO.3.1(A) Given a mathematical or real-world context, find the greatest common factor and least common multiple of two whole numbers. MA.6.NSO.3.2(A) Rewrite the sum of two composite whole numbers having a common factor, as a common factor multiplied by the sum of two whole numbers. MA.6.NSO.3.4(A) Express composite whole numbers as a product of prime factors with natural number exponents. MA.6.NSO.3.5(A) Rewrite positive rational numbers in different but equivalent forms including fractions, terminating decimals and percentages. MA.6.NSO.4.1(A) Apply and extend previous understandings of operations with whole numbers to add and subtract integers with procedural fluency. MA.6.NSO.4.2(A) Apply and extend previous understandings of operations with whole numbers to multiply and divide integers with procedural fluency. MA.6.AR.1.1(A) Given a mathematical or real-world context, translate written descriptions into algebraic expressions and translate algebraic expressions into written descriptions. MA.6.GR.2.1(A) Derive a formula for the area of a right triangle using a rectangle. Apply a formula to find the area of a triangle. MA.6.GR.2.3(A) Solve mathematical and real-world problems involving the volume of right rectangular prisms with positive rational number edge lengths using a visual model and a formula. MA.6.GR.2.4(A) Given a mathematical or real-world context, find the surface area of right rectangular prisms and right rectangular pyramids using the figure's net.	Rounding decimals; Mentally dividing decimals by 10 & 100; Decimals chart; Simplifying fractions; Reducing by grouping factors equal to 1; Dividing fractions; Common denominators: Adding and subracting fractions-3 step; Probablility and chance; Adding mixerd numbers; Polygons	Investigation 6 - Attributes of Geometric Solids
Unit 6 - Expressions and Equations / Weeks 18-20 *(updated 9/22/23)*	MA.6.AR.1.1(A) Given a mathematical or real-world context, translate written descriptions into algebraic expressions and translate algebraic expressions into written descriptions. MA.6.AR.1.4(A) Apply the properties of operations to generate equivalent algebraic expressions with integer coefficients. MA.6.AR.2.1(A) Given an equation or inequality and a specified set of integer values, determine which values make the equation or inequality true or false. MA.6.AR.2.2(A) Write and solve one-step equations in one variable within a mathematical or real-world context using addition and subtraction, where all terms and solutions are integers. MA.6.AR.2.3(A) Write and solve one-step equations in one variable within a mathematical or real-world context using multiplication and division, where all terms and solutions are integers.	Adding 3 or more fractions; Writing mixed numbers as improper fractions; Subtracting mixed numbers with regrouping 2; Classifying quadrilaterals; Prime factorization; Division by primes; Factor trees; Multiplying mixed numbers; Using prime factorization to reduce fractions; Dividing mixed numbers; Lengths of segments; Complementary and supplementary angles; Reducing fractions before multiplying	Investigation 7 - The Coordinate Plane

	MA.6.AR.2.4(A) Determine the unknown decimal or fraction in an equation involving any of the four operations, relating three numbers, with the unknown in any position.		
Unit 7 - Rational Numbers / Weeks 21-23 *(updated 9/22/23)*	MA.6.NSO.1.1(A) Extend previous understanding of numbers to define rational numbers. Plot, order and compare rational numbers. MA.6.NSO.1.2(A) Given a mathematical or real-world context, represent quantities that have opposite direction using rational numbers. Compare them on a number line and explain the meaning of zero within its context. MA.6.NSO.1.3(A) Given a mathematical or real-world context, interpret the absolute value of a number as the distance from zero on a number line. Find the absolute value of rational numbers. MA.6.NSO.1.4(A) Solve mathematical and real-world problems involving absolute value, including the comparison of absolute value. MA.6.NSO.3.1(A) Given a mathematical or real-world context, find the greatest common factor and least common multiple of two whole numbers. MA.6.NSO.3.2(A) Rewrite the sum of two composite whole numbers having a common factor, as a common factor multiplied by the sum of two whole numbers. MA.6.NSO.4.1(A) Apply and extend previous understandings of operations with whole numbers to add and subtract integers with procedural fluency. MA.6.NSO.4.2(A) Apply and extend previous understandings of operations with whole numbers to multiply and divide integers with procedural fluency. MA.6.AR.1.2(A) Translate a real-world written description into an algebraic inequality in the form of xx>aa, xx MA.6.AR.2.1(A) Given an equation or inequality and a specified set of integer values, determine which values make the equation or inequality true or false. MA.6.GR.1.1(A) Extend previous understanding of the coordinate plane to plot rational number ordered pairs in all four quadrants and on both axes. Identify the xx- or yy- axis as the line of reflection when two ordered pairs have an opposite xx- or yy- coordinate. MA.6.GR.1.2(A) Find distances between ordered pairs, limited to the same xx-coordinate or the same yy-coordinate, represented on the coordinate plane. MA.6.GR.1.3(A) Solve mathematical and real-world problems by plotting points on a coordinate plane, including finding the perimeter or area of a rectangle.	Parallelograms; Fractions chart; Multiplying 3 fractions; Exponents; Writing decimals as fractions 2; Writing fractions and decimals; Writing ratios as deimals; Writing fractions and decimals as percents 1; Compaing fractions by converting to decimals; Finding unstated information in fraction problems; Capacity; Area of a triangle; Using a constant factor to sove ratio problems	Investigation 8 - Geometrip Constuction of Bisectors
Unit	**Benchmarks**	**Content/Skills**	**Assessments**
Trimester 3			
Unit 8 - Data Sets and Distributions / Weeks 24-25 *(updated 9/22/23)*	MA.6.GR.1.1(A) Extend previous understanding of the coordinate plane to plot rational number ordered pairs in all four quadrants and on both axes. Identify the xx- or yy- axis as the line of reflection when two ordered pairs have an opposite xx- or yy- coordinate. MA.6.GR.1.2(A) Find distances between ordered pairs, limited to the same xx-coordinate or the same yy-coordinate, represented on the coordinate plane. MA.6.GR.1.3(A)		

	Solve mathematical and real-world problems by plotting points on a coordinate plane, including finding the perimeter or area of a rectangle. MA.6.DP.1.1(A) Recognize and formulate a statistical question that would generate numerical data. MA.6.DP.1.2(A) Given a numerical data set within a real-world context, find and interpret mean, median, mode and range. MA.6.DP.1.3(A) Given a box plot within a real-world context, determine the minimum, the lower quartile, the median, the upper quartile and the maximum. Use this summary of the data to describe the spread and distribution of the data. MA.6.DP.1.4(A) Given a histogram or line plot within a real-world context, qualitatively describe and interpret the spread and distribution of the data, including any symmetry, skewness, gaps, clusters, outliers and the range. MA.6.DP.1.5(A) Create box plots and histograms to represent sets of numerical data within realworld contexts. MA.6.DP.1.6(A) Given a real-world scenario, determine and describe how changes in data values impact measures of center and variation.		
Unit 9: Review of Concepts and Standards/Weeks 26			