Mathematical Practices Grades K - 8

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.

5th Grade Mathematics Curriculum Map

Trimester	Unit of Study	Illinois Learning Standards	Mathematical Practice Standard	Learning Targets
1	Unit 1: Expressions, Equations, and Volume	4.OA.3 5.OA.1 5.OA.2 4.NBT.5 4.NBT.6 5.NBT.6 5.MD.3 b 5.MD.5a	5.MP.1 5.MP.2 5.MP.3 5.MP.4 5.MP.6 5.MP.7 5.MP.8	• Solve multi-step story problems with whole numbers. • Use parentheses to solve numerical expressions and equations. • Write and interpret numerical expressions. • Recognize, find and measure volume by using manipulatives and visual models to understand concepts of volume measurements (length, width, and height). • Find whole-number quotients using different strategies.
	Unit 2: Adding and Subtracting Fractions	5.NF.1 5.NF.2 5.NF.3 5.NF.4a	5.MP.1 5.MP.2 5.MP.3 5.MP.4 5.MP.5 5.MP.6 5.MP.7 5.MP.8	• Add and subtract fractions with unlike denominators including mixed numbers. • Solves a story problem involving addition and subtraction
2	Unit 2:	5.NF.1	5.MP.1	• Add and subtract fractions with unlike

	Adding and Subtracting Fractions	5.NF.2 5.NF.3 5.NF.4a	5.MP.2 5.MP.3 5.MP.4 5.MP.5 5.MP.6 5.MP.7 5.MP.8	denominators including mixed numbers • Find the missing value in an equation by adding or subtracting fractions with unlike denominators, including mixed numbers. • Uses equivalent fractions with a common denominator in order to find sums or differences • Solves story problems involving addition and subtraction of fractions • Choose the best estimate for a story problem that involves adding fractions with unlike denominators. • Assesses the reasonableness of an answer to the story problem.
	Unit 3: Place Value and Decimals	5.NBT.1 5.NBT.2 5.NBT..3 a-b 5.NBT.4 5.NBT.6 5.NBT.7 5.MD.1	5.MP.1 5.MP.2 5.MP.3 5.MP.4 5.MP.6 5.MP.7 5.MP.8	• Read and write decimals to the thousandths • Compare 2 decimals to the thousandths place • Use place value to round decimals • Find whole-number quotients with 4-digit dividends and 2-digit divisors using a variety of strategies • Add and subtract decimals to the hundredths using models/numbers/drawings • Multiply and divide decimals to hundredths using multiple strategies • Convert standard measurement units in word problems
	Unit 4: Multiplying and Dividing Whole Numbers and Decimals	5.NBT.5 5.NBT.6 5.NBT.7 5.NF.4a	5.MP.1 5.MP.2 5.MP.3 5.MP.4 5.MP.6 5.MP.7 5.MP.8	• Write simple expressions • Multiply multi-digit whole numbers using standard algorithm • Find whole-number quotients with 4-digit dividends and 2-digit divisors using a variety of strategies • Multiply and divide decimals to hundredths using multiple strategies • Multiply fraction by a whole number

3	Unit 4: Multiplying and Dividing Whole Numbers and Decimals	5.NBT.5 5.NBT.6 5.NBT.7 5.NF.4a 5.OA 2	5.MP.1 5.MP.2 5.MP.3 5.MP.4 5.MP.6 5.MP.7 5.MP.8	• Write simple expressions • Multiply multi-digit whole numbers using standard algorithm • Find whole-number quotients with 4-digit dividends and 2-digit divisors using a variety of strategies • Multiply and divide decimals to hundredths using multiple strategies • Multiply fraction by a whole number
	Unit 5: Multiplying and Dividing Fractions	5.NF.1 5. NF.4a 5.NF.4b 5.NF.5a 5.NF.5b 5.NF.6 5.NF.7a 5.NF.7b 5.NF.7c	5.MP.1 5.MP.2 5.MP.3 5.MP.4 5.MP.5 5.MP.6 5.MP.7 5.MP.8	• Multiply fractions and whole numbers • Represent fraction multiplication with models • Find the area of a rectangle with fractional dimensions • Compare the size of a product to one factor • Explain why multiplying a given number by a fraction greater than 1 results in a product greater than the given number • Divide a unit fraction by a whole number using a visual model • Divide a whole number by a unit fraction using a visual model • Solve story problems involving division unit fractions by whole numbers, and whole numbers by unit fractions
	Unit 7: Division and Decimals	5.MD.1 5.MD.3b 5.MD.4 5.MD.5 a-c 5.G.1	5.MP.1 5.MP.2 5.MP.3 5.MP.4 5.MP.5 5.MP.6	• Explain patterns in the number of zeros in the product when multiplying by powers of 10 • Explain patterns in the placement of the decimal point when multiplying or dividing by powers of 10 • Denote powers of 10 with whole-number exponents

		5.G.2 5.G.3 5.G.4	5.MP.7 5.MP.8	• Divide a 3- or 4-digit whole number by a 2-digit whole number using strategies based on place value, the properties of operations, or the relationship between multiplication and division • Use equations, rectangular arrays, or area models to explain strategies for dividing multidigit whole numbers • Multiply and divide decimals to hundredths, using strategies based on place value • Divide a unit fraction by a whole number • Divide a whole number by a unit fraction • Solve story problems involving division of a unit fraction by a whole number, and vice versa
	Unit 6: Graphing, Geometry and Volume	5.NF.1 5.NF.3 5.NF.4 a-b 5.NF.5 a-b 5.NF.6 5.NF.7 a-c 5.G.1 5.G.2 5.G.3 5.G.4 5.MD.5 b-c 5. OA.3	5.MP.1 5.MP.2 5.MP.3 5.MP.4 5.MP.5 5.MP.6 5.MP.7 5.MP.8	• Generate two numerical patterns given two different rules • Identify relationships between corresponding terms in two numerical patterns generated according to two different rules • Graph on a coordinate plane ordered pairs consisting of the corresponding terms in two numerical patterns generated according to two different rules • Divide a 3-digit whole number by a 2-digit whole number using strategies based on place value, the properties of operations, or the relationship between multiplication and division • Use the formula V = l × w × h to find the volume of a right rectangular prism with wholenumber edge lengths • Use the formula V = b × h to find the volume of a right rectangular prism with wholenumber edge lengths • Solve story problems involving finding the volume of a solid figure composed of two nonoverlapping right rectangular prisms

				• Locate a point on a coordinate plane based on its ordered pair of coordinates • Write the x- and y-coordinates of a given point in a coordinate plane as an ordered pair • Graph points in the first quadrant of the coordinate plane to represent a problem • Describe the meaning of the values of coordinate points based on the context of a problem or situation • Demonstrate an understanding that attributes of a category of two-dimensional figures also belong to all subcategories of that category • Classify two-dimensional figures based on their attributes • Classify two-dimensional figures within a hierarchy based on properties