Mohawk Local Schools	Grade Math: 6
Quarter 1	Curriculum Guide

Mathematical Practices

1. Make Sense of Problems and Persevere in Solving them
2. Reasoning Abstractly & 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

Critical Areas of Focus Being Addressed:

- Ratios and Proportions
- The Number System
- Modeling and Reasoning

Content Statements Addressed and Whether they are Knowledge, Reasoning, Performance Skill, or Product: (DOK1) (DOK2) (DOK3) (DOK4)	Underpinning Targets Corresponding with Standards and Whether they are Knowledge, Reasoning, Performance Skill, or Product: "I can…..", "Students Will Be Able To……."
6.RP.1 Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1,	**(DOK 1) I Can…** • Write ratio notation- __:__, __ to __, __/__

because for every 2 wings there was one beak." "For every vote candidate A received, candidate C received nearly three votes." (DOK 2)	• Know order matters when writing a ratio Know ratios can be simplified • Know ratios compare two quantities; the quantities do not have to be the same unit of measure • Recognize that ratios appear in a variety of different contexts; partto-whole, part-to-part, and rates **DOK 2 I Can…** • Generalize that all ratios relate two quantities or measures within a given situation in a multiplicative relationship. • Analyze your context to determine which kind of ratio is represented
6.RP.2 Understand the concept of a unit rate a/b associated with a ratio a:b with b ≠ 0, and use rate language in the context of a ratio relationship. For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger." (DOK 2)	**DOK 1 I Can…** • Identify and calculate a unit rate. • Use appropriate math terminology as related to rate. **DOK 2 I Can…** • Analyze the relationship between a ratio a:b and a unit rate a/b where b ≠ 0
6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. (DOK 2) a. Make tables of equivalent ratios relating quantities with whole-	**DOK 1 I Can…** • Make a table of equivalent ratios using whole numbers. • Find the missing values in a table of equivalent ratios.

number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios. b. Solve unit rate problems including those involving unit pricing and constant speed. For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed? c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.	• Plot pairs of values that represent equivalent ratios on the coordinate plane. • Know that a percent is a ratio of a number to 100. • Find a % of a number as a rate per 100. **DOK 2 I Can…** • Use tables to compare proportional quantities. • Solve real-world and mathematical problems involving ratio and rate, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. • Apply the concept of unit rate to solve real-world problems involving unit pricing. • Apply the concept of unit rate to solve real-world problems involving constant speed. • Solve real-world problems involving finding the whole, given a part and a percent. • Apply ratio reasoning to convert measurement units in real-world and mathematical problems. • Apply ratio reasoning to convert measurement units by multiplying or dividing in realworld and mathematical problems.
6.NS.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4	**DOK 1 I Can…** • Compute quotients of fractions divided by fractions (including mixed numbers). **DOK 2 I Can…** • Interpret quotients of fractions • Solving word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.

mi and area 1/2 square mi? (DOK 2)	
6.NS.2 Fluently divide multi-digit numbers using the standard algorithm. (DOK 1)	**DOK 1 I Can…** • Fluently divide multi-digit numbers using the standard algorithm with speed and accuracy
6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. (DOK 1)	**DOK 1 I Can…** • Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation with speed and accuracy.
6.NS.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express 36 + 8 as 4 (9 + 2). (DOK 2)	**DOK 1 I Can…** • Identify the factors of two whole numbers less than or equal to 100 and determine the Greatest Common Factor. • Identify the multiples of two whole numbers less than or equal to 12 and determine the Least Common Multiple. **DOK 2 I Can…** • Apply the Distributive Property to rewrite addition problems by factoring out the Greatest Common Factor.