Mohawk Local Schools Grade 7 Math

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

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……."
7.RP.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction miles per hour, equivalently 2 miles per hour. (DOK 1)	(DOK1) I can: • Compute unit rates associated with ratios of fractions in like or different units.
7.RP.2abcd Recognize and represent proportional	(DOK 1)

relationships between quantities. a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin. b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. c. Represent proportional relationships by equations. For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn. d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate. (DOK 2)	I can: • Know that a proportion is a statement of equality between two ratios. • Define constant of proportionality as a unit rate. • Recognize what (0, 0) represents on the graph of a proportional relationship. • Recognize what (1, r) on a graph represents, where r is the unit rate. (DOK 2) I can: • Analyze two ratios to determine if they are proportional to one another with a variety of strategies. (e.g. using tables, graphs, pictures, etc.) • Analyze tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships to identify the constant of proportionality. • Represent proportional relationships by writing equations. • Explain what the points on a graph of a proportional relationship means in terms of a specific situation.
7.RP.3 Use proportional relationships to solve multistep ratio and percent problems. (DOK 2)	(DOK 1) I can: • Recognize situations in which percentage proportional relationships apply. (DOK 2) I can: • Apply proportional reasoning to solve multistep ratio and percent problems, e.g., simple interest, tax, markups, markdowns, gratuities, commissions, fees, percent increase and decrease, percent error, etc.