Mohawk Local Schools Grade 7 Math

Quarter 4 Curriculum Guide

<u>Mathematical Practices</u>

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:

- Statistics and Probability

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.SP.4 Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations (DOK 2)	(DOK 1) I can: • Find measures of central tendency (mean, median, and mode) and measures of variability (range, quartile, etc.).

	(DOK 1) I can: • Analyze and interpret data using measures of central tendency and variability. • Draw informal comparative inferences about two populations from random samples.
7.SP.5 Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around ½ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event. (DOK 2)	(DOK 1) I can: • Know that probability is expressed as a number between 0 and 1. • Know that a random event with a probability of ½ is equally likely to happen. • Know that as probability moves closer to 1 it is increasingly likely to happen. • Know that as probability moves closer to 0 it is decreasingly likely to happen.
7.SP.6 Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. (DOK 2)	(DOK 1) I can: • Determine relative frequency (experimental probability) is the number of times an outcome occurs divided by the total number of times the experiment is completed. (DOK 2) I can: • Determine the relationship between experimental and theoretical probabilities by using the law of large numbers. • Predict the relative frequency (experimental probability) of an event based on the (theoretical) probability.
7.SP.7ab Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. a. Develop a uniform probability model by assigning equal probability to all outcomes, and	(DOK 1) I can: • Recognize uniform (equally likely) probability. • Use models to determine the probability of events. (DOK 2) • Develop a uniform probability model and use it to determine the

use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected. b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. (DOK 2)	probability of each outcome/event. • Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. • Analyze a probability model and justify why it is uniform or explain the discrepancy if it is not.
7.SP.8abc Find probabilities of compound events using organized lists, tables, tree diagrams, and simulations. a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs. b. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g. "rolling double sixes"), identify the outcomes in the sample space which compose the event. c. Design and use a simulation to generate frequencies for compound events. (DOK 2)	(DOK 1) I can: • Define and describe a compound event. • Know that the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs. • Identify the outcomes in the sample space for an everyday event. • Define simulation. (DOK 2) I can: • Find probabilities of compound events using organized lists, tables, tree diagrams, etc. and analyze the outcomes. • Choose the appropriate method such as organized lists, tables and tree diagrams to represent sample spaces for compound events. • Design and use a simulation to generate frequencies for compound events.