Curriculum Units and Learning Outcomes

Content Area: Math - Pre Algebra 7	**Grade Level: 7**
Unit Title: Probability and Data	
Unit Summary: Students will solve real-world and mathematical problems statistics and probability.	
Massachusetts Standards: ● 7.SP.1 Understand that statistics can be used to gain information about a population by examining a sample of the population; ● 7.SP.2 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. ● 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. ● 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. ● 7.SP.6 Approximate and predict the relative frequency given the probability. ● 7.SP.7 Develop a probability model and use it to find probabilities of events. ● 7.SP.8 Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation	
Enduring Understandings - Students will understand that: ● the probability of an event is a numerical representation of the likelihood of it happening.	
Essential Questions: ● How can you describe the likelihood of an event? ● In an experiment, how can you determine the number of possible results? ● How can you determine whether a sample accurately represents a population? ● How can you compare two populations using a measure of center and measure of variability?	

Students will demonstrate KNOWLEDGE of:	**Students will be SKILLED at**:
● Describe and compare measures of center including mean, median and mode for 2 or more data representations. ● Describe and compare measures of variability including range, interquartile range, and mean absolute deviation for 2 or more data representations. ● How to determine the probability of an event given certain parameters. ● Calculate experimental and theoretical probabilities. ● Determine probability from dependent and independent events.	● In experiments, determining the number of possible results. ● Analyze samples of population and make inferences.

Estimated Duration: 11 classes