

**Content Standard A6
Eighth Grade Level
Statistics/Probability**

Students understand mathematical facts, concepts, principles and theories. They collect, organize, analyze, interpret, represent, and formulate questions about data and make reasonable and useful predictions about the certainty, uncertainty, or impossibility of an event.

State Mathematics Performance Standards 6 th -8 th	KGBSD Performance Standards	State Grade Level Expectations (GLE's)
M6.3.1 Collect, analyze, and display data in a variety of visual displays including frequency distribution, circle graphs, box and whisker plots, stem and leaf plots, histograms, and scatter plots with and without technology.	1.1 Analyze display data using tables and graphs	<u>Statistics and Probability: Data Display</u> The student demonstrates an ability to classify and organize data by [8] S&P-1 [designing, collecting L], organizing, displaying, or explaining the classification of data in real-world problems (e.g., science or humanities, peers or community), using histograms, scatter plots, or box and whisker plots with appropriate scale [or with technology L] (M6.3.1)
M6.3.2 Interpret and analyze information found in newspapers, magazines, and graphical displays.	2.1 Interpret and analyze data from tables and graphs	<u>Statistics and Probability: Analysis and Central Tendency</u> The student demonstrates an ability to analyze data (comparing, explaining, interpreting, evaluating, making predictions, or describing trends; or drawing, formulating, or justifying conclusions) by
M6.3.3 Determine and justify a choice of mean, median, or mode as the best representation of data for a practical situation.	3.1 Determine and justify a choice of mean median, mode or range as the best representation of data for a situation	[8] S&P-2 using information from a variety of displays or analyzing the validity of statistical conclusions found in the media (M6.3.2)
M6.3.4 Make projections based on available data and evaluate whether or not inferences can be made given the parameters of the data.	4.1 Formulate accurate inferences and projections based on filling in a extending data to solve problems	[8] S&P-3 determining or justifying a choice of mean, median, or mode as the best representation of data for a practical situation (M6.3.3)
M6.3.5 Use tree diagrams and sample spaces to make predictions about independent events.	5.1 Determine the theoretical probability of independent events. Analyze and make a predication of the outcomes based on probability	<u>Statistics and Probability: Probability</u> The student demonstrates a conceptual understanding of probability and counting techniques by [8] S&P-4 determining or comparing the experimental and theoretical probability of simple events (M6.3.5)

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M6.3.6 Design and conduct a simulation to study a problem and communicate the results.	6.1 Design and conduct a simulation to study a problem and communicate the results	<p>[8] S&P-5 using a systematic approach to finding sample spaces and to making predictions about the probability of independent events and using the information to solve real-world problems (M6.3.5)</p> <p>[8] S&P-6 [designing and conducting a simulation to study a problem and communicate the results L] (M6.3.6)</p>