MATHEMATICS

Statistics, Data Analysis, and Probability

Grade 3	Grade 4	Grade 5

1. Students conduct simple probability experiments by determining the number of possible outcomes, and make simple predictions.
 	
    3.1.1 identify whether common events are certain, likely, unlikely, or improbable
 	
    3.1.2 record the possible outcomes for a simple event (e.g., tossing a coin) and systematically keep track of the outcomes when the event is repeated many times
 	
    3.1.3 summarize and display the results of probability experiments in a clear and organized way (e.g., use a bar graph or a line plot)
 	
    3.1.4 use the results of probability experiments to predict future events (e.g., use a line plot to predict the temperature forecast for the next day)
	1. Students organize, represent and interpret numerical and categorical data, and clearly communicate their findings.
	
	    4.1.1 formulate survey questions, systematically collect and represent data on a number line, coordinate graph, table and/or chart
	
	    4.1.2 identify the mode(s) for sets of categorical data, and the mean, mode(s), median, and any apparent outliers for numerical data sets
	
	    4.1.3 interpret one- and two-variable data graphs to answer questions about a situation
		1. Students display, analyze, compare and interpret different data sets, including data sets that are not the same size.
		
		    5.1.1 collect, organize, display and interpret data in appropriate tables, charts, graphs and representations (e.g., histogram, circle graphs) and explain which types of graphs are appropriate for different kinds of data sets
		
		    5.1.2 know the concepts of averaging, compute and compare mean, median, and mode; and notice that they can differ
		
		    5.1.3 use fractions and percentages to compare data sets of different size
		
		    5.1.4 identify ordered pairs of data from a graph and interpret the meaning of the data in terms of the situation depicted by the graph
		
		    5.1.5 know how to write ordered pairs correctly using the x , y coordinate plane

	2. Students make predictions for simple probability situations.
	
	    4.2.1 represent all possible outcomes for a simple probability situation in an organized way (e.g., tables, grids, tree diagrams)
	
	    4.2.2 express outcomes of experimental probability situations verbally and numerically (e.g., 3 out of 4; 3/4)	