<b>Enduring Understandings</b>	<b>Essential Questions</b>	Indicators
		4.5.2.1 collect and organize data using a variety of graphic representations, including tables, stem and leaf plots, line plots, and line graphs.
Representation of data depends on the characteristics of that data.	What data display is appropriate for a given set of data?	4.5.2.2 select and defend the selection of particular graphic displays.
	`	4.5.3.1 analyze and interpret stem and leaf plots and double line graphs.
Statistical measures provide a numeric picture of the shape of the data.	How can the mean, median, mode, and range be used to describe the shape of	4.5.4.1 explain how mean, median, mode, and range of a data set are different.
	the data?  How can mean,	4.5.4.2 use the range, mean, median, and mode to describe a set of data.
	median, and mode be computed and compared?	4.5.4.3 compute and compare range, mean, median, and mode of data sets.

MCPS©2003 27

<b>Enduring Understandings</b>	<b>Essential Questions</b>	Indicators
		4.6.1.2 conduct and use the results of a simple statistical investigation to answer a question.
	What is the purpose of displaying data?	4.6.3.1 analyze and interpret data using various formats, including frequency tables.
		4.6.2.1 interpret, organize, and display data, with and without technology, using various formats, including frequency tables and circle graphs.
		4.6.1.3 construct convincing arguments to support conclusions based on analysis of data and interpretation of graphs.
Choices in data collection and representation affect their interpretation and use.	How does the selection of a sample affect conclusions based on the sample?	4.6.1.1 identify and compare different ways of selecting a sample.
	Which measure of central tendency is most appropriate in a given situation?	4.6.4.1 select and justify mean, median, or mode of a data set as the best representation of a typical value of a data set.
		4.6.5.1 recognize and identify the misuses of statistical and numerical data.
	How can the data representation influence conclusions?	4.6.5.2 analyze why the way in which data are displayed might influence the conclusion reached.
		4.6.5.3 analyze the effect a change of scale will have on graphs.

MCPS©2003 28