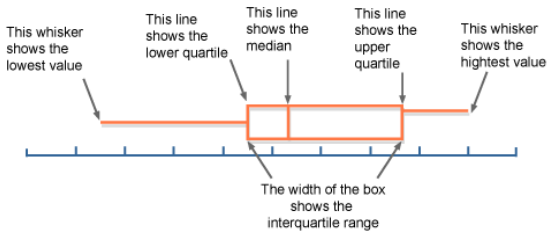
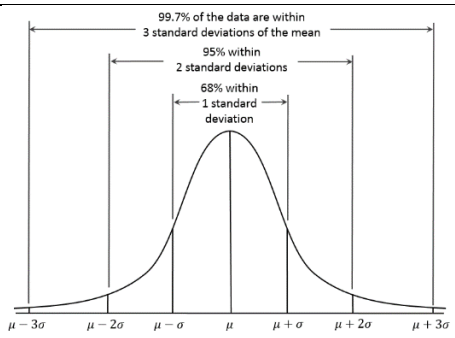
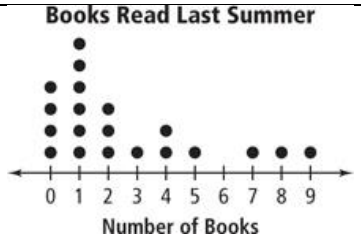
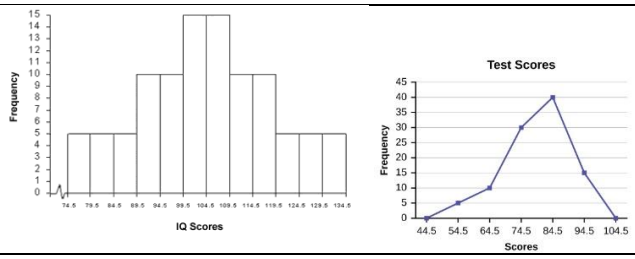
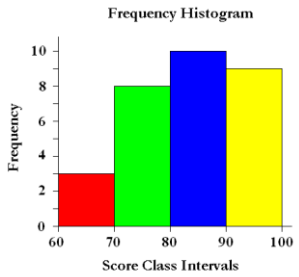
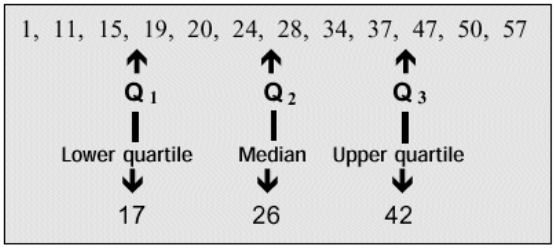
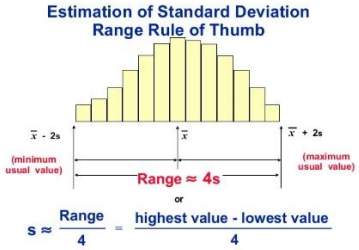
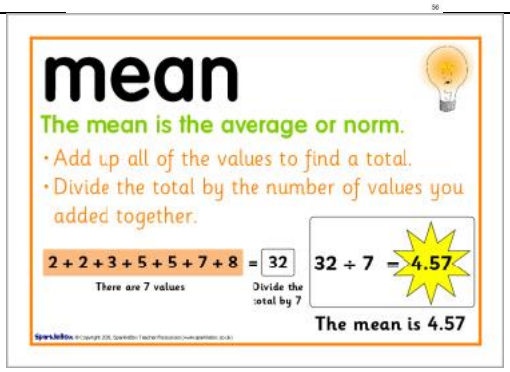
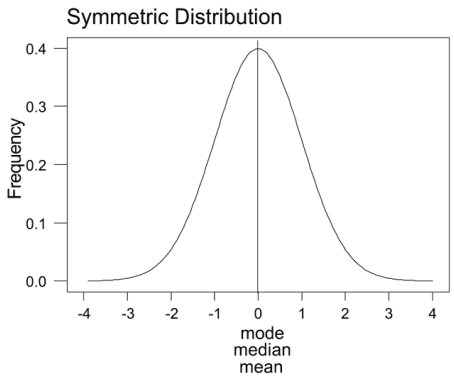
MATH: UNIT VOCABULARY

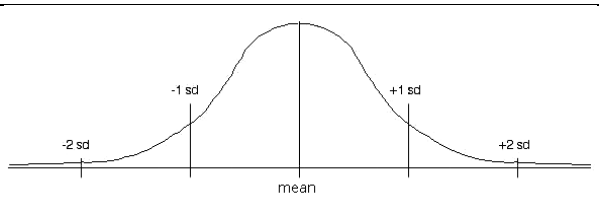
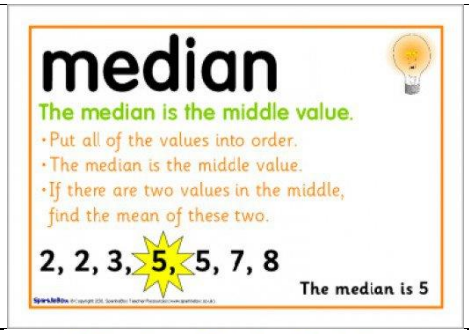
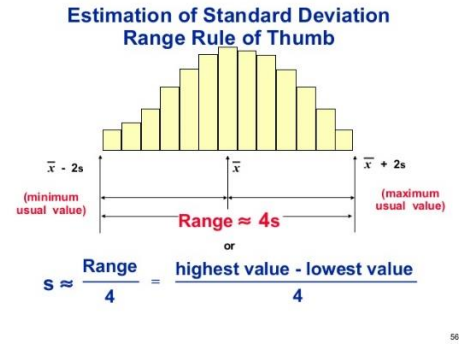
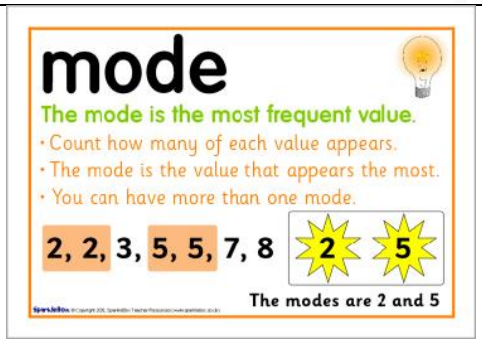
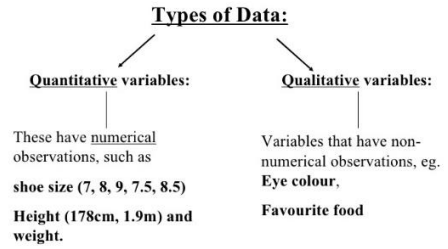
Statistics

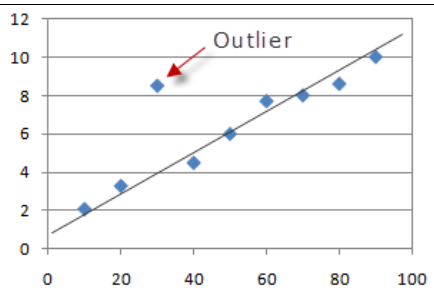
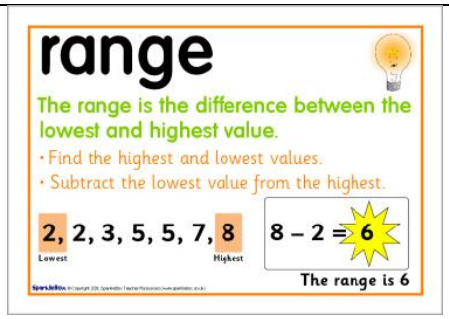
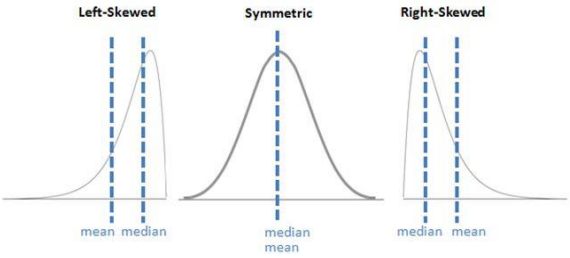
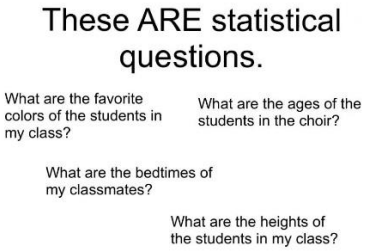
NAME:_____

CHART

TERM	INFORMATION	PICTURE
Box and Whisker Plot	A diagram that summarizes data using the median, the upper and lowers quartiles, and the extreme values (minimum and maximum). Box and whisker plots are also known as box plots. It is constructed from the five-number summary of the data: Minimum, Q1 (lower quartile), Q2 (median), Q3 (upper quartile), Maximum.	
Distribution	The arrangement of values that show the spread of the data. Probability **distribution** assigns a probability to each measurable subset of the possible outcomes of a random experiment, survey, or procedure of **statistical** inference.	
Dot Plot	A statistical chart consisting of data points on a number line, typically using circles.	
Frequency	The number of times an item, number, or event occurs in a set of data. Often represented on a histograms.	

Grouped Frequency Table	The organization of raw data in table form with classes and frequencies	<table><tr><th>Type of Pet</th><th>#of Students</th></tr><tr><td>Dog</td><td>14</td></tr><tr><td>Cat</td><td>8</td></tr><tr><td>Fish</td><td>3</td></tr><tr><td>Reptile</td><td>2</td></tr><tr><td>Rodent</td><td>5</td></tr><tr><td>Other</td><td>2</td></tr><tr><td>None</td><td>7</td></tr></table> <table><tr><th>Number of Cups of Coffee</th><th>Tally</th><th>Frequency</th></tr><tr><td>0 - 3</td><td>//</td><td>2</td></tr><tr><td>4 - 7</td><td>///</td><td>3</td></tr><tr><td>8 - 11</td><td>~~𝍸 ///~~</td><td>8</td></tr><tr><td>12 - 15</td><td>///</td><td>3</td></tr><tr><td>16 - 19</td><td>//</td><td>2</td></tr></table>
Histogram	a way of displaying numeric data using horizontal or vertical bars so that the height or length of the bars indicates frequency	
Inter-Quartile Range (IQR	The difference between the first and third quartiles. (Note that the first quartile and third quartiles are sometimes called upper and lower quartiles.)	
Maximum value	The largest value in a set of data.	
Mean	The “average” or “fair share” value for the data. The mean is also the balance point of the corresponding data distribution. $aaaahmmmmm\ mmmm = \overline{x} = x1 + x2 + x3 + \cdots xn\ n$	
Measures of Center	The mean and the median are both ways to measure the center for a set of data. The value at the center or the middle of the data set.	

Measures of Spread	The range and the interquartile range are both common ways to measure the spread for a set of data.	
Median	The value for which half the numbers are larger and half are smaller. If there are two middle numbers, the median is the arithmetic mean of the two middle numbers. Note: The median is a good choice to represent the center of a distribution when the distribution is skewed or outliers are present.	
Minimum value	The smallest value in a set of data.	
Mode	The number that occurs the most often in a list. There can be more than one mode, or no mode.	
Numerical Data	Consists of numbers only. Numerical data can be any rational numbers.	

Outlier	An outlier is an observation that is numerically distant from the rest of the data.	
Range	A measure of spread for a set of data. To find the range, subtract the smallest value from the largest value in a set of data.	
Skewed Data	When a set of data is not symmetrical it can skewed, meaning it tends to have a long tail on the left or right side.	
Statistical Questions	A statistical question is one for which you don't expect to get a single answer. Instead, you expect to get a variety of different answers, and you are interested in the distribution and tendency of those answers. For example, "How tall are you?" is not a statistical question, however "How tall are the students in your school?" is a statistical question.	
Variability	Describes how spread out or closely clustered a set of data is. Variability includes range and interquartile range.