First Quarter at a Glance

Throughout first quarter students will be introduced to the basic concepts and goals of statistics. Students will learn ways to organize and describe data sets. They will learn how to make the data easier to understand by describing trends, averages, and variations. They will also learn how to find probabilities of events. These probabilities can be found by using the different counting techniques and operations on probability.

Chapter 1: Introduction to Statistics

1.1 An overview of Statistics
1.2 Data classification
1.3 Experimental Design

Chapter 2: Descriptive Statistics

2.1 Frequency Distribution and Graphs
2.2 More Graphs and Displays
2.3 Measures of Central Tendency
2.4 Measure of Variation

Chapter 3: Probability

3.1 Basic Concepts of Probability and Counting
3.2 Conditional Probability and multiplication Rule
3.3 Addition rule

3.4 Additional Topics in Probability and counting

2nd Quarter

Second Quarter at a Glance

Throughout the second quarter, students will learn how to create and use probability distributions. They will learn how to describe the shape, center and variability of a probability distribution in order to make decisions in inferential statistics. They will also learn to recognize normal distributions and apply the properties in real life situations.

Chapter 4: Discrete Probability and Distributions

4.1 Probability Distributions

4.2 Binomial Distributions

More Discrete Probability (Geometric Distribution only)

Chapter 5: Normal Probability Distribution

5.1 Introduction to Normal Distribution and Standard Normal Distribution

5.2 Normal Distribution: Finding Probabilities

5.3 Normal Distribution: Finding Values

5.4 Sampling Distribution and Central limit Theorem

5.5 Normal Approximation to Binomial distribution

3rd Quarter

Chapter 6: Confidence Intervals

6.1 Confidence Interval for the Mean (Large Samples)

6.2 Confidence Intervals for the Mean (Small Samples)
6.3 Confidence Intervals for population Proportions

6.4 Confidence Intervals for Variance and Standard Deviation

Chapter 7: Hypothesis Testing with One Sample

7.1 Introduction to Hypothesis Testing

7.2 Hypothesis Testing for the Mean (Large Samples)

7.3 Hypothesis Testing for the Mean (Small Samples)

7.4 Hypothesis testing for proportions

7.5 Hypothesis Testing for Variance and Standard Deviation

Chapter 8: Hypothesis Testing With Two Samples

8.1 Testing Difference between Means (Large Independent Samples)

4TH Quarter

Chapter 8: Hypothesis Testing With Two Samples

8.2 Testing the Difference between Means (Small Independent Samples)

8.3 Testing the Difference between Means (Dependent Samples)

8.4 Testing the difference between Proportions

Chapter 9: Correlation and Regression

9.1 Correlation

9.2 Linear Regression

9.3 Measure of Regression and Prediction Intervals

Chapter 10: Chi-Square Tests and F-Distribution

10.1 Goodness of Fit Test

10.2 Independence
Requirements:

Agenda book, **Graphing Calculator (TI 83/84)**, Notebook, Folder, College Ruled Paper and Pencil

Students Name & Signature: ____________________________ Date: ______

Parents Name & Signature: ____________________________ Date: ______