

## **Statistics Pacing Guide**

Statistics is designed to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The major themes in Statistics include: interpreting categorical and quantitative data, conditional probability and other rules of probability, using probability to make decisions, and making inferences and justifying conclusions.

### **Quarter 1**

Interpreting Categorical and Quantitative Data

- Understand, represent, and use univariate data.
- Understand, represent, and use bivariate data.

### **Quarter 2**

Conditional Probability and the Rules of Probability

- Understand and apply basic concepts of probability.
- Use the rules of probability to compare probabilities of compound events in a uniform probability model.

### **Quarter 3**

Using Probability to Make Decisions

- Understand and use discrete probability distributions.
- Understand the normal probability distribution.

### **Quarter 4**

Making Inferences and Justifying Conclusions

- Know the characteristics of well-defined studies.
- Design and conduct a statistical experiment to study a problem, then interpret and communicate the outcomes.
- Make inferences about population parameters based on a random sample from that population.
- Understand and use confidence intervals. o Use distributions to make inferences about a data set.