



Capital School District

Math Curriculum – AP Statistics

This is a college level course designed to give the serious math student a strong foundation in the field of statistics. Students will be introduced to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to 1. exploring data, 2. sampling and experimentation, 3. anticipating patterns, and 4. statistical inference. A graphing calculator is mandatory. Students are required to take the Advanced Placement Examination in May and depending upon the exam score may earn college credit.

This year your child's curriculum will include the following:

Marking Period 1

- Displaying distributions with graphs, describing distributions with numbers
- Density Curves and the normal distribution, standard normal calculations
- Scatterplots, correlation, least-squares regression
- Transforming relationships, cautions about correlation and regression, relations in categorical data

Marking Period 2

- Designing samples, designing experiments, simulating experiments
- The idea of probability, probability models, general probability rules
- discrete and continuous random variables, means and variances of random variables
- The binomial distribution, the geometric distribution

Marking Period 3

- Sampling distributions, sample proportions, sample means
- Estimating with confidence, tests of significance, making sense of statistical significance, inference as decision
- Inference for the mean of a population, comparing two means
- Inference for a population proportion, comparing two means

Marking Period 4

- Test for Goodness of Fit, inference for two-way tables
- Inference about the model, predictions and conditions
- Inference for population spread, one-way analysis of variance