

Why?

Essential Questions

1. How can the results of a statistical investigation be used to support an argument?
2. How is probability used to make decisions?

Enduring Understanding

Statistics and probability are used to make inferences and predictions.

Expectations

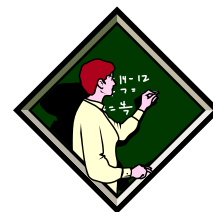
Collect, organize, analyze, and present data using technology as needed.

Apply the basic concepts of statistics and probability to predict possible outcomes of real-world situations, using technology as needed.

What?

MCPS Indicators and Standards

- 3.1.1 design and/or conduct an investigation that uses statistical methods to analyze data and communicate results.
 - 3.1.1.a design an investigation that may include simple random sampling, representative sampling, and/or probability simulations, describe how data will be collected, and justify the method.
 - 3.1.1.b decide and justify whether a sample is representative or biased.
 - 3.1.1.c decide and justify whether a sampling method is simple random sampling.
- 3.1.2.1 evaluate inferences and predictions that are based on data analysis.
- 3.1.3 calculate theoretical probability or use simulations or statistical inference from data to estimate the probability of an event.
 - 3.1.3.a calculate the theoretical probability of an event for a chance situation.
 - 3.1.3.b determine the experimental probability of an event using data.
- 3.2.1 make informed decisions and predictions based upon the results of simulations and data from research.
- 3.2.3 communicate the use and misuse of statistics.

**Algebra**