

## Statistical Inferences

### Today's Standard

HSS.IC.A1 - Understand statistics as a process for making inferences about population parameters based on a random sample from that population.

### Real-World Applications for this Standard

Polling data to predict election outcomes; Quality control in manufacturing; Medical studies and drug efficacy; Market research and consumer behavior; Environmental studies and population sampling

### Today I Learned

Today, we learned how to use statistics to make guesses about a big group by looking at a small, random part of it.

### Common Stumbling Blocks

Sometimes, kids think that bigger groups always give better guesses, but that's not true if the group isn't chosen carefully. They might also think that if two things happen together, one must cause the other, which isn't always right.

### Quiz Me

- What is a sample?
- Why do we use random samples?
- What is a population?
- Does a bigger sample always mean better guesses?
- What is the difference between correlation and causation?

### Help Me

We use statistics to make guesses about big groups by looking at small, random parts of them. For example, we might look at a few people to guess what everyone in a city likes. This helps us make good choices in real life, like knowing what toys kids might want.