

Parent Guide to the

# **Conditional Probability Interpretation**

### Today's Standard

HSS.CP.B6 - Find the conditional probability of A given B as the fraction of B's outcomes that also belong to A, and interpret the answer in terms of the model.

## Real-World Applications for this Standard

Predicting weather patterns based on current conditions.; Determining the likelihood of a patient having a disease given a positive test result.; Analyzing the probability of drawing a specific card from a deck given previous draws.; Evaluating risk in financial investments given market conditions.; Assessing the probability of a sports team winning given their past performance.

#### Today I Learned

Today, we learned about conditional probability. This means finding the chance of something happening if we know something else has already happened. For example, if we know it's raining, what's the chance we'll see a rainbow?

### **Common Stumbling Blocks**

Sometimes, kids think that the chance of A happening if B happens is the same as the chance of B happening if A happens. They might also think that this chance is always smaller than the chance of A or B happening alone. Both of these ideas are not always true.

#### Quiz Me

- What is conditional probability?
- How do you find P(A|B)?
- Is P(A|B) always the same as P(B|A)?
- Can conditional probability be higher than individual probabilities?
- Can you give an example of conditional probability?

#### Help Me

Conditional probability helps us understand how likely something is to happen if we know something else has already happened. For example, if we know a car is red, we might want to know how likely it is to be a sports

car. This helps us make better guesses and decisions in real life.