Probability Models and Event Frequencies

Today's Standard

7.SP.C7 - Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.

Cues	Notes
What is a probability model?	A probability model is a mathematical representation of a random phenomenon.
How do you find the probability of an event?	To find the probability of an event, divide the number of favorable outcomes by the total number of possible outcomes.
Why might observed frequencies differ from predicted probabilities?	Observed frequencies might differ from predicted probabilities due to sample size, experimental error, or random variation.
What are common misconceptions about probability models?	Common misconceptions include believing probabilities must always match observed frequencies and thinking models are incorrect if they don't match observations.
How can we address these misconceptions?	Address misconceptions by using hands-on activities and discussing factors like sample size and experimental error.

Summary

Understanding probability models helps predict the likelihood of events and compare predictions with actual outcomes. It's important to recognize that short-term observations can vary and consider factors like sample size and error.