



## Sample Space and Event Relationships

### Today's Standard

HSS.CP.A1 - Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not").

Cues	Notes
Sample Space	Sample space: The set of all possible outcomes in a probability experiment.
Union of Events	Union of events: The event that occurs if at least one of the events happens ('or').
Intersection of Events	Intersection of events: The event that occurs if both events happen simultaneously ('and').
Complement of Events	Complement of events: The event that occurs if the original event does not happen ('not').
Real-World Applications	Real-world applications include predicting weather, assessing risk in investments, and calculating game probabilities.

### Summary

Understanding how to describe events within a sample space using unions, intersections, and complements is crucial for analyzing probabilities in various real-world contexts.