**Vocabulary Flash Cards** biased sample compound event Chapter 10 Chapter 10 dependent events event Chapter 10 Chapter 10 experiment experimental probability Chapter 10 Chapter 10 **Fundamental Counting** favorable outcomes **Principle** 

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## Vocabulary Flash Cards

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An event that consists of two or more events  Spinning a spinner and flipping a coin	A sample that is not representative of a population; One or more parts of the population are favored over others.  You want to estimate the number of students in your school who like to play basketball. You survey 100 students at a basketball game.
A collection of one or more outcomes of an experiment  Flipping heads on a coin	Two events such that the occurrence of one event affects the likelihood that the other event(s) will occur  A bag contains 3 red marbles and 4 blue marbles. You randomly draw a marble, do not replace it, then randomly draw another marble. The events "first marble is blue" and "second marble is red" are dependent events.
Probability that is based on repeated trials of an experiment $P(\text{event}) = \frac{\text{number of times the event occurs}}{\text{total number of trials}}$ A basketball player makes 19 baskets in 28 attempts. The experimental probability that the player makes a basket is $\frac{19}{28}$ , or about 68%.	An investigation or procedure that has varying results  Rolling a number cube
An event $M$ has $m$ possible outcomes and event $N$ has $n$ possible outcomes. The total number of outcomes of event $M$ followed by event $N$ is $m \times n$ .  You have 7 shirts, 5 pairs of pants, and 2 pairs of shoes. You can make $7 \times 5 \times 2 = 70$ different outfits.	The outcomes of a specific event  When rolling a number cube, the favorable outcomes for the event "rolling an even number" are 2, 4, and 6.

**Vocabulary Flash Cards** independent events outcomes Chapter 10 Chapter 10 population probability Chapter 10 Chapter 10 relative frequency sample

relative frequency

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Sample space

Simulation

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The possible results of an experiment  The outcomes of flipping a coin are heads and tails.	Two events such that the occurrence of one event does not affect the likelihood that the other event(s) will occur  You flip a coin and roll a number cube. The events "flipping tails" and "rolling a 4" are independent events.
A number from 0 to 1 that measures the likelihood that an event will occur  See experimental probability and theoretical probability.	An entire group of people or objects  Population: All of the 14-year-old females in the United States  Sample: All of the 14-year-old females in your town
A part of a population  See population.	The fraction or percent of the time that an event occurs in an experiment  You flip a coin 20 times. If you flip heads 11 times, the relative frequency of flipping heads is $\frac{11}{20}$ , or 55%.
An experiment that is designed to reproduce the conditions of a situation or process	The set of all possible outcomes of one or more events  You flip a coin twice. The outcomes in the sample space are HH, HT, TH, and TT.

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theoretical probability	unbiased sample
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## **Vocabulary Flash Cards**

A sample that is representative of a population; It is selected at random and is large enough to provide accurate data.

You want to estimate the number of students in your school who like to play basketball. You survey 100 students at random during lunch.

The ratio of the number of favorable outcomes to the number of possible outcomes when all possible outcomes are equally likely

$$P(\text{event}) = \frac{\text{number of favorable outcomes}}{\text{number of possible outcomes}}$$

When rolling a number cube, the theoretical probability of rolling a 4 is  $\frac{1}{6}$ .