

# Math 7 Strategies 1

Pletcher  
September Lessons - Probability

# Unit Objectives - Math 7 PSSA

## ASSESSMENT ANCHOR

**M07.D-S.3** Investigate chance processes and develop, use, and evaluate probability models.

### DESCRIPTOR

**M07.D-S.3.1** Predict or determine the likelihood of outcomes.

### ELIGIBLE CONTENT

**M07.D-S.3.1.1** Predict or determine whether some outcomes are certain, more likely, less likely, equally likely, or impossible (i.e., a probability near 0 indicates an unlikely event, a probability around  $\frac{1}{2}$  indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event).

## ASSESSMENT ANCHOR

**M07.D-S.3** Investigate chance processes and develop, use, and evaluate probability models.

### DESCRIPTOR

**M07.D-S.3.2** Use probability to predict outcomes.

### ELIGIBLE CONTENT

**M07.D-S.3.2.1** Determine the probability of a chance event given relative frequency. Predict the approximate relative frequency given the probability.

*Example: When rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times but probably not exactly 200 times.*

**M07.D-S.3.2.2** Find the probability of a simple event, including the probability of a simple event **not** occurring.

*Example: What is the probability of **not** rolling a 1 on a number cube?*

**M07.D-S.3.2.3** Find probabilities of independent compound events using organized lists, tables, tree diagrams, and simulation.

## Week October 2-6 Lesson Overview

Monday -

*Majority Class out for Bike Trip so others will keep practicing with studyisland sessions with Mrs. Pletcher*

Tuesday

- Review problems and terms such as sample space with list of all outcomes, difference between theoretical versus experimental probability, making a prediction (percent multiply by number of times), range of probability values, likely versus unlikely, compound probability.

Wednesday

- TEST on Probability using covered Studyisland questions on the four sections from probability covered.

# Next Unit - October 5 pickup

## ASSESSMENT ANCHOR

**M07.D-S.1** Use random sampling to draw inferences about a population.

### DESCRIPTOR

**M07.D-S.1.1** Use random samples.

### ELIGIBLE CONTENT

**M07.D-S.1.1.1** Determine whether a sample is a random sample given a real-world situation.

**M07.D-S.1.1.2** Use data from a random sample to draw inferences about a population with an unknown characteristic of interest.  
*Example 1: Estimate the mean word length in a book by randomly sampling words from the book.*  
*Example 2: Predict the winner of a school election based on randomly sampled survey data.*

## ASSESSMENT ANCHOR

**M07.D-S.2** Draw comparative inferences about populations.

### DESCRIPTOR

**M07.D-S.2.1** Use statistical measures to compare two numerical data distributions.

### ELIGIBLE CONTENT

**M07.D-S.2.1.1** Compare two numerical data distributions using measures of center and variability.  
*Example 1: The mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team. This difference is equal to approximately twice the variability (mean absolute deviation) on either team. On a line plot, note the difference between the two distributions of heights.*  
*Example 2: Decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.*

# Week October 5-6 Continue Overview

## Thursday - Sampling

First use the “gummy” samples from our candy bag from last week. Record the data and determine mean value of each color per bag.

Second use the large “gummy” sample from this week.

Friday - Use Studyisland group session on to explore sample problems.

6. M07.D-S Statistics and Probability			
a. <a href="#">Sampling Analysis</a>	10 items & 70%	<a href="#">M07.D-S.1.1.1</a> ; <a href="#">M07.D-S.1.1.2</a>	
b. <a href="#">Compare Data Sets</a>	10 items & 70%	<a href="#">M07.D-S.2.1.1</a>	