

Unit 1 OVERVIEW

SECTION	CORE PROBLEMS	VIDEOS	Lesson Objectives	CCSS Standards
CC2 1.1.2	1-7 & 1-9	Adding and Subtracting Fractions with Unlike Denominators: Multiplying with a Giant One:	Simple Probability (analyzing a game) Simple Probability (parent guide)	
CC2 1.1.4	1-23 thru 1-27 & 1-30		Investigating a Proportional Relationship Measures of Central Tendency (parent guide)	
CC3 1.1.2	1-12 thru 1-16		Finding and Generalizing Patterns	
CC3 1.1.4	1-30 thru 1-34 and 1-35 thru 1-40		Collection, Organizing, and Analyzing Data	8.SP.2
CC2 1.2.1	1-50 thru 1-52 1-54 & 1-55	Portions Web	Introduction to Probability	7.SP.5 7.SP.6
CC2 1.2.2	1-63 thru 1-67		Investigating Probability Choosing a Scale (parent guide)	7.SP.6 7.SP.7b
CC2 1.2.3	1-75 thru 1-78		Modifying the Sample Space	7.SP .7a
CC2 1.2.7	1-119 thru 1-122		Compound Probability	7.SP .8a
CC2 1.2.8	1-130 thru 1-133		Subtracting Probability	7.SP .8a
CCSS Standards				

7.SP.C.5

Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $1/2$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.

7.SP.C.6

Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For 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.

7.SP.C.7

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.

- a) Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.
- b) Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?

7.SP.C.8

Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.

Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.

8.SP.2

Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.

Mathematical Vocabulary

The following is a list of vocabulary found in this chapter. It is a good idea to make sure you are familiar with these words and to know what they mean. For the words you do not know, refer to the glossary or index. You might also want to add these words to your Toolkit for a way to reference them in the future.

area	compound events	desired outcomes
equivalent fractions	experimental probability	lowest common denominator
interval	mean	measure of central tendency
median	multiplicative identity	outcome
outliers	parallelogram	percent
perimeter	possible outcomes	probability
proportional relationship	rectangle	repeating decimal
sample space	scaling	terminating decimal
theoretical probability	trapezoid	triangle

** Please note this is a comprehensive curriculum and will include additional mathematical content and standards. This is ONLY an overview of Unit 1.