

Algebra 2: Unit 5 Instructional Focus — Applications of Probability

Topic	Instructional Foci
<p>Topic 1: Conditional Probability and the Rules of Probability</p>	<p>Building on probability concepts that began in the middle grades, students develop sample spaces and use them to calculate probabilities of events. Conditional probabilities are determined using two-way tables. The concepts of dependent and independent events are explored. Events and their probabilities are represented using Venn and tree diagrams and two-way frequency tables. The rule for conditional probability, the addition rule, and the multiplication rule for independent events are developed and applied. Honors Algebra 2 students develop and apply the general multiplication rule. The focus in this unit is on applying probability concepts to real-world situations.</p> <p><u>Concepts:</u></p> <ul style="list-style-type: none"> • Determine the elements of a sample space and use it to determine the probability of an event. • Calculate probabilities of events using two-way tables. • Define and determine conditional probabilities using two-way tables. • Determine whether two or more events are independent. • Represent events and add and subtract probabilities using Venn and tree diagrams. • Develop and apply the rule for conditional probability and the Multiplication Rule for independent events. • Develop and apply the Addition Rule for compound events. <p><i>Concepts unique to Honors Algebra 2:</i></p> <ul style="list-style-type: none"> • Develop and apply the General Multiplication Rule.