Corsica Stickney Curriculum Map

Subject: Mathematics Grade: 7th Unit6 Module13 Lesson 13.1,3.2,13.3,13.4	Teacher: Mr. Jason Broughton Duration: May
Summary of unit: Students will be able to use theoretical probability to solve real-world problems.	
Stage 1 – Desired Results	
Standards: 7.RP.3 Use proportional relationships to solve multistep ratio and percent problems. 7.SP.6 Approximate the probability of a chance event by collecting data … and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. 7.SP.7a Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. 7.SP.8 Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. 7.SP.8a 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. 7.SP.8b Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes in the sample space which compose the event. 7.SP.8c Design and use a simulation to generate frequencies for compound events.	Essential Questions: How can you find the theoretical probability of a simple event? How do you find the probability of a compound event? How do you make predictions using theoretical probability? How can you use technology simulations to estimate probabilities?

Corsica Stickney Curriculum Map

Language objective	Mathematical practices	Integrate mathematical practice
Students will show how to find the theoretical probability of a simple event Students will explain how to find the probability of a compound event Students will tell how to make predictions using theoretical probability Students will describe how to use simulations to estimate probabilities.	MP.7 Look for and make use of structure MP.2 Reason abstractly and quantitatively MP.4 Model with mathematics. MP.5 Use appropriate tools strategically	MP.7 It calls for students to analyze mathematical relationships to connect and communicate mathematical ideas. Students find and compare the theoretical probability of simple events. They also use the probability of an event to find the probability of its complement. Finally, students perform an experiment to compare the theoretical and experimental probability of an event MP.2 It calls for students to create and use representations to organize, record, and communicate mathematical ideas. Students make a table to model a sample space. Then students use a tree diagram to find the sample space. Finally, students make an organized list to describe a sample space. In all three situations, students create and use different representations to find the probability of compound events based on real-world situations. MP.4 It calls for students to apply mathematics to problems arising in everyday life. Students use theoretical probability to write a proportion and an equation, which model a game, to make a quantitative prediction about the game. Then they use probability to make a quantitative prediction based on volunteer options. Next, students use probability to make qualitative predictions based on probabilities in real-world situations. In this way, students use mathematical models to make both quantitative and qualitative

Corsica Stickney Curriculum Map

		predictions that arise in everyday life. MP.5 It calls for students to select tools, including real objects and technology as appropriate, and to solve problems. Students use a random number generator of a graphing calculator or computer to help them perform a simulation. Thus, the students use technology to find experimental probabilities of events that would otherwise be difficult to find.
Stage 2 – Assessment Evidence		
Performance Tasks: Homework quizzes, worksheet, Tests.		Unit Pre-Assessment: Assign ready-made or customized practice tests to prepare students for high-stakes tests
Stage 3 – Learning Plan		
Learning Activities: procedures/topics Reading and discussing lesson with class. Giving students examples to be completed in class. Students taking notes and using notes to complete homework assignments.		
Lesson Description MODULE 13 Theoretical Probability and Simulations Lesson 13.1 Theoretical Probability of Simple Events Lesson 13.2 Theoretical Probability of Compound Events Lesson 13.3 Making Predictions with Theoretical Probability Lesson 13.4 Using Technology to Conduct a Simulation		