Corsica Stickney Curriculum Map

Subject: Mathematics Grade: 7th Unit 1 Module 4 Lesson 4.1,4.2,4.3 Module 5 Lesson 5.1,5.2,5.3	Teacher: Mr. Jason Broughton Duration: October
Summary of unit: Students will be able to use rates and proportionality to solve real-world problems. Students will be able to use proportional relationships and percent to solve real world problems.	
Stage 1 – Desired Results	
Standards: 7.RP.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. 7.RP.2 Recognize and represent proportional relationships between quantities. 7.RP.2a Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin. 7.RP.2b Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. 7.RP.2c Represent proportional relationships by equations. 7.RP.2d Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate 7.RP.3 Use proportional relationships to solve multistep ratio and percent problems.	Essential Questions: How do you find and use unit rates? How can you identify and represent proportional relationships? How can you use graphs to represent and analyze proportional relationships? How can you tell whether a relationship between two quantities is or is not proportional? How do you use percents to describe change? How can you rewrite expressions to help you solve markup and markdown problems? How do you use percents to solve problems?

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7.NS.3 Solve real-world and mathematical problems involving the four operations with rational 7.EE.2 Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. 7.EE.3 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.	

Language objective	**Mathematical practices**	**Integrate mathematical practice**
Students will learn to find and use unit rates Students will fully explain how to identify and represent proportional relationships. Students will explain how to use graphs to represent and analyze proportional relationships. Students will show how to use percents to describe change. Students will demonstrate and explain how to rewrite expressions to solve markup and markdown problems.	MP.2 Reason abstractly and quantitatively MP.4 Model with mathematics. MP.5 Use appropriate tools strategically	MP.4 This lesson provides an opportunity to address this Mathematical Practice standard. It calls for students to apply mathematics to problems arising in everyday life, society, and the workplace. Students use bar diagrams to model the relationship between a rate and a unit rate. Then students divide the numerator of a fraction representing the rate by the denominator to get a unit rate. Finally, students use unit rates to simplify rates that appear complicated, including rates that are complex fractions, so that they can be compared. In this way, students are able to apply mathematics to problems in everyday life. MP.2 This lesson provides an opportunity to address this Mathematical Practice standard. It

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Students will write about using percents to solve problems.		calls for students to create and use representations to organize, record, and communicate mathematical ideas. Students use tables to model a relationship between corresponding real-world proportional values. Then students simplify the ratios in the table to decide if there is a proportional relationship. Finally, students write an equation for a proportional relationship. In this way, students are able to use representations to organize, record, and communicate mathematical ideas. MP.5 This lesson provides an opportunity to address this Mathematical Practice standard. It calls for students to use bar models to model the relationship between a mathematical expression and a real-world context regarding either a markup or a markdown. This gives students the opportunity to read a real-world situation and use that information to write an algebraic expression to represent retail and sale prices. Finally, the students use the expression they write to solve problems regarding markups and markdowns.
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		

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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 **Unit 2** **Module 4** Lesson 4.1 Unit Rates Lesson 4.2 Constant Rates of Change Lesson 4.3 Proportional Relationships and Graphs . Module 5 Lesson 5.1 Percent Increase and Decrease Lesson 5.2 Rewriting Percent Expressions Lesson 5.3 Applications of Percent