Corsica Stickney Curriculum Map

Subject: Algebra 1 Grade:9th Unit 8 Module 19 Lesson 19.1,19.2,19.3 Module 20 Lesson 20.1,20.2,20.3	Teacher: Mr. Jason Broughton Duration: March

| Summary of unit:

students will complete a Math in Careers task by graphing and writing an equation for a function that fits a data set comparing gas mileage to speed. Critical skills include modeling real-world situations and fitting a function to a set of data. ||

| **Stage 1 – Desired Results** ||

Standards: F-BF.B.3 Identify the effect on the graph of replacing f(x) by . . . f(kx). . . for specific values of k (both positive and negative). F-IF.B.4 For a function that models a relationship between two quantities, interpret key features of graphs… F-IF.C.7a Graph . . . quadratic functions and show intercepts, maxima, and minima	Essential Questions: What is the effect of the constant a on the graph of $f(x) = ax^2$? How can you obtain the graph of $g(x) = a(x - h)^2 + k$ from the graph of $f(x) = x^2$? : How can you change the vertex form of a quadratic function to standard form? How can you use the graph of a quadratic function to solve its related quadratic equation?

Language objective	**Mathematical practices**	**Integrate mathematical practice**
Describe terms associated with quadratic functions. Students work in pairs or small groups to both give and listen to oral clues about graphs of quadratic functions. Work with a partner to describe how to write quadratic functions in vertex form and standard form. Given a quadratic function modeling a real-world situation, explain to a partner what the zeros of the function represent.	MP.2 Reasoning	MP.2, which calls for students to "reason abstractly and quantitatively." Students learn to recognize the parent function of a quadratic equation and then to analyze the relationship between the value of a and the graph of the quadratic function.

| **Stage 2 – Assessment Evidence** |||

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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 19 Graphing Quadratic Functions
 Lesson 19.1 Understanding Quadratic Functions
 Lesson 19.2 Transforming Quadratic Functions
Lesson 19.3 Interpreting Vertex Form and Standard Form

MODULE 20 Connecting Intercepts, Zeros, and Factors
 Lesson 20.1 Connecting Intercepts and Zeros
 Lesson 20.2 Connecting Intercepts and Linear Factors
Lesson 20.3 Applying the Zero Product Property to Solve Equations . .