Subject: Mathematics Grade: 7th Unit4 Module 9 Lesson 9.1,9.2,9.3,9.4,9.5	Teacher: Mr. Jason Broughton Duration: February

Summary of unit:

Students will be to apply geometry concepts to solve real-world problems.

Stage 1 – Desired Results	

Standards: 7.RP.2a Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table. 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.G.4 Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle. 7.G.6 Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	Essential Questions: How do you find and use the circumference of a circle? How do you find the area of a circle? How do you find the area of composite figures? How can you find the surface area of a figure made up of cubes and prisms? How do you find the volume of a figure made of cubes and prisms?

Language objective	**Mathematical practices**	**Integrate mathematical practice**
Students will demonstrate how to find and use the circumference of a circle. Students will explain how to find the area of a circle Students will write instructions on how to find the area of composite figures	MP.7 Look for and make use of structure MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	MP.7 This lesson provides an opportunity to address this Mathematical Practice standard. It calls for students to look for and make use of structure. Students initially examine the measurements of several circular objects, reaching the conclusion that the relationship between the circumference and the diameter is a constant ratio, pi. They then use this underlying structure to solve problems involving the radius,

Students will explain how to find the surface area of a figure made up of cubes and prisms
 	
Students will explain how to find the volume of a figure made of cubes and prisms.
		diameter, and circumference of a circle.
		
		   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 develop the formula for the area of a circle by using a parallelogram as a model and then use the formula to find the area of real-life circles in real-life situations. Students also explore the relationship between the circumference of a circle and its area and then use that relationship to solve problems. In this way, students have applied mathematics to problems involving the area of circular figures.
		
		   MP.5 This lesson provides an opportunity to address this Mathematical Practice standard. It calls for students to select tools, including paper and pencil, and techniques to solve problems. Students find the area of a composite figure by dividing it into simpler figures for which they know the area formulas. Then they find the area of each simpler figure and add these areas together to find the total area of the composite figure. They apply this technique to real-life figures. In this way, students have used a technique to solve a problem involving a real-world, composite figure.

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

Corsica Stickney Curriculum Map

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 9   Circumference, Area, and Volume

Lesson 9.1 Circumference
Lesson 9.2 Area of Circles
Lesson 9.3 Area of Composite Figures
Lesson 9.4 Solving Surface Area Problem
Lesson 9.5 Solving Volume Problems