5th Grade Core Career Connection

Title: Architecture
Core Subjects: Math, Visual Arts

Standards: 5050-01 The students will apply mathematical concepts and skills to solve problems they encounter in daily living. 5050-02 The students will show understanding and application of mathematical concepts and justification of solutions to problems by communicating in oral, pictorial, and/or written form. 5050-03 Students will explain and justify logical reasoning strategies when working through (learning) a mathematical concept or solving a problem. 5050-10 Students will process and translate information into usable knowledge; and make inferences and convincing arguments based on that knowledge. 5050-12 The students will discover relationships and develop spatial sense by constructing, drawing, measuring, visualizing, comparing, transforming, and classifying geometric figures found in the everyday world.

Objectives: 5050-01 to 5050-0105 Develop and apply problem-solving approaches to investigate and understand mathematical content, formulate problems from everyday and mathematical situations, develop and apply strategies to solve a wide variety of problems, verify and interpret results with respect to the original problem, and acquire confidence in using mathematics meaningful. 5050-0201 to 5050-06 Model situations using oral, written, concrete, and graphical, reflect on and clarify thinking about mathematical ideas and situations, develop common understandings of mathematical ideas including the role of definitions, interpret and evaluate mathematical ideas by using the skills of reading, listening, and viewing, discuss ideas and make conjectures and convincing arguments, understand the value of mathematical notation and its role in the development of ideas. 5050-0301 to 5050-0305 Recognize and apply deductive and inductive reasoning, understand and apply reasoning processes with special attention to spatial reasoning, validate the student's own thinking, and appreciate the pervasive use and power of reasoning. 5050-01 Collect, organize, and describe data in a systematic fashion. 5050-1201 to 5050-1206 Identify describe, compare, and classify geometric figures, visualize and represent geometric figures with special attention to developing spatial sense, explore transformations of geometric figures, represent and solve problems using geometric models, understand and apply geometric properties and relationships, and develop an appreciation of geometry as a means of describing the physical world. 5050-1301 Extend their understanding of the process of measurement. 5050-1303 Select appropriate units and tools to measure to the degree of accuracy required in a particular situation. 5050-1304 Understand the structure and use of systems of measurement. 5050-1305 Extend their understanding of the concepts of perimeter, area, and angle measure. 5050-1307 Develop formulas and procedures for determining measures to solve problems.

Abstract / Strategy:

As a culminating project, assessment, or extension to the study of geometry and measurement, students will be contracted as "architects" in designing and planning blueprints for floor plans to build a "dream" home. An architect will be invited to introduce the process of design and architecture, discuss the use of measurement and geometry in the trade, and share examples of architectural work.