Unit 1: Chromebooks, Internet Safety and Online Research Techniques

Content Area: **Template**
Course(s):
Time Period: **Full Year**
Length: **September- January**
Status: **Published**

UNIT RATIONALE

Understanding Geometry supports spacial awareness, measurement of objects, visual thinking, logical reasoning skills, pattern recognition and development throughout a variety of different fields.

ESSENTIAL QUESTIONS

- **How do we use measurements of two- and three-dimensional objects to solve real-world problems?**
- **How does a coordinate plane help us understand the world around us?**
- **How does understanding the formula for the area of a rectangle help derive other geometric formulas?**

STANDARDS

NEW JERSEY STUDENT LEARNING STANDARDS: CONTENT AREA

New Jersey (NJSLS) - Grade 6 - Mathematics (2020)

MA.6.NS.C.6	Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.
MA.6.NS.C.6a	Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., –(–3) = 3, and that 0 is its own opposite.
MA.6.NS.C.6b	Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
MA.6.NS.C.7	Understand ordering and absolute value of rational numbers.
MA.6.NS.C.7d	Distinguish comparisons of absolute value from statements about order.
MA.6.NS.C.8	Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.
MA.6.EE.B.6	Use variables to represent numbers and write expressions when solving a real-world or

	mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
MA.6.G	Geometry
MA.6.G.A	Solve real-world and mathematical problems involving area, surface area, and volume.
MA.6.G.A.1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
MA.6.G.A.2	Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = lwh$ and $V = Bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.
MA.6.G.A.3	Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
MA.6.G.A.4	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

NEW JERSEY STUDENT LEARNING STANDARDS: CAREER READINESS, LIFE LITERACIES AND KEY SKILLS

NEW JERSEY STUDENT LEARNING STANDARDS: COMPUTER SCIENCE AND DESIGN THINKING

PRE-ASSESSMENTS

Pretest

1.JPG

2.JPG

Start Strong Data

NJSLA Grade 5 review of concepts

INSTRUCTIONAL PLAN

MODULE 1

Student Learning Intentions (SLI) WALT: (We are learning to…)	**Classify two dimensional figures into categories based on their properties** **-Given a situation add, subtract, multiply, divide fractions, mixed numbers and decimals to solve real-world problems**
Student Learning Strategies	
Success Criteria	
Formative Assessment (drives instructional decisions)	
Activities and Resources	
Suggested Modifications	

MODULE 2

Student Learning Intentions (SLI) WALT: (We are learning to…)	**-Given a situation add, subtract, multiply, divide fractions, mixed numbers and decimals to solve real-world problems**

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REFLECTIONS

INTERDISCIPLINARY CONNECTIONS: NEW JERSEY STUDENT LEARNING STANDARDS FOR ELA, SOCIAL STUDIES, SCIENCE AND/OR MATHEMATICS