

## Northern York County School District

## Curriculum Overview

Course: Math 6		
Grade Level: 6 <sup>th</sup>		
Approval Date: Spring 2024	Length of Time: 180 days	
Course Description:		
The 6 <sup>th</sup> grade math curriculum is designed to help students develop into resourceful and prepared		
math learners capable of authentic problem solving. Student learning focuses on the concepts of		
computation, comparison of values, writing and solving expressions and equations, geometric		
concepts, and statistical variability. Students are also provided opportunities to apply these skills to		
real-life and complex problem-solving situations. This course is aligned to the Pennsylvania State		
Standards for Mathematics and the sixth grade Math PSSA (Pennsylvania System of School		
Assessment).		
Course Objectives:		
<ul> <li>Understand, write and simplify algebraic expressions with whole numbers</li> </ul>		
<ul> <li>Understand, write and solve algebraic equations with whole numbers</li> </ul>		
<ul> <li>Perform arithmetic operations with positive rational numbers</li> </ul>		
Locate rational numbers on a number line and compare their values		
Represent and understand ratios and unit rate		
Find and analyze statistical measures of center and variability		
Calculate area, surface area and volume		
Related Standards:		
CC.2.1.6.E.I Apply and extend previous understandings of multiplication and division to		
• CC 2.1.6 E.2.Identify and choose appropriate processes to compute fluently with multi-digit		
CC.2.1.6.E.2 Identify and choose appropriate processes to compute liberity with molli-digit numbers		
<ul> <li>CC 21.6 E 3 Develop and/or apply number theory concepts to find common factors and</li> </ul>		
multiples		
<ul> <li>CC.2.1.6.F.4 Apply and extend previous understandings of numbers to the system of rational</li> </ul>		
numbers		
<ul> <li>CC.2.1.6.D.1 Understand ratio concepts and</li> </ul>	d use ratio reasoning to solve problems.	
CC. 2.2.6.B.1. Apply and extend previous understandings of arithmetic to algebraic		
expressions.		
CC.2.2.6.B.2 Understand the process of solvi	ng a one-variable equation or inequality and	
apply to real-world and mathematical problems.		
CC.2.2.6.B.3 Represent and analyze quantity	ative relationships between dependent and	
independent variables.		
CC.2.3.6.A.1 Apply appropriate tools to solv	e real-world and mathematical problems	
involving area, surface area, and volume.		
CC.2.4.6.B.1 Demonstrate an understanding	of statistical variability by displaying, analyzing,	
and summarizing distributions.		
Units:		

• Expressions and Equations

<ul> <li>Geometry</li> <li>Numbers and Operations</li> <li>Rational Numbers</li> <li>Ratio Relationships</li> </ul>	
<ul> <li>Statistics</li> <li>Concepts: <ul> <li>Algebraic equations and expressions</li> <li>Area, volume and geometric formulas</li> <li>Positive and Negative rational numbers</li> <li>Ratios and unit rates</li> <li>Data analysis and displays</li> </ul> </li> </ul>	<ul> <li>Competencies:</li> <li>Understand, write and solve algebraic equations and expressions</li> <li>Compute area, surface area, and volume</li> <li>Understand the order and absolute value of rational numbers</li> <li>Represent and/or solve real-world and mathematical problems using rates, ratios, and percents</li> <li>Display, analyze, and summarize numerical data sets</li> </ul>
Learning Activities: Demonstration and modeling Classroom discussions Inquiry based learning Error analysis Guided and independent Practice Game-based learning opportunities Collaborative problem solving Student self-reflection	<ul> <li>Performance Tasks:</li> <li>Formative assessments such as student discussion, questioning, peer collaborative activities, reflections, and online interactive learning activities and assignments.</li> <li>Summative assessments such as quizzes, end of unit tests, and projects.</li> </ul>
Other Assessment Measures: <sup>6th</sup> Grade Math PSSA end-of-course state assessment, benchmark assessments, diagnostic tools, teacher and/or student-generated rubrics Textbook/Primary Resource:	
Supplemental Resource Materials: Digital resources such as PDESAS, PSSA released items, IXL	