SPRING GROVE AREA SCHOOL DISTRICT

PLANNED COURSE OVERVIEW

Course Title: Pre-Algebra - 6	**Length of Course:** 30 cycles
Grade Level(s): 6	**Periods Per Cycle:** 6
Units of Credit: N/A	**Length of Period:** 80 minutes
Classification: Required	**Total Instructional Time:** 240 hours

Course Description

This course is designed to provide the foundation for learning algebra before introducing the concepts of Algebra 1 and is inclusive of 6th, 7th, and 8th grade PA Core Standards for Math. The topics covered include properties, integers, rational numbers, equations, systems of equations, inequalities, functions, graphing, proportions, percent, statistics, and geometry.

Instructional Strategies, Learning Practices, Activities, and Experiences

Anchor Charts	Flexible Groups	Projects
Anticipatory Sets	Graphic Organizers	Remediation
Assessments (Chapter, Unit, Teacher-Created)	Guided Practice	Review (Games, Study Guides)
Bell Ringers	Higher-Level Questioning	Simulations
Calculators	Homework	Standardized Test Preparation
Class Discussions	Interaction Sequence	Teacher Demonstrations
Closure	Journals	Teacher Observations
Computer Websites and/or Software	Manipulatives	Technology Integration
Cooperative Learning	Notes (Templates, Teacher- or Student-Generated)	Videos/DVDs
Critical Thinking	Partners (Think-Pair-Share)	Vocabulary (Cards, Strategies, and Lists)
Cross Curricular Connections	Posted and Numbered Objectives	Wait Time
Drill and Practice	Practice Exercises and Tests	Wait Time Extended
	Presentations	

Assessments

Assessments (Chapter, Unit, Teacher-Created)	Higher-Level Questioning	Projects
Bell Ringers	Homework Review	State Standardized Assessments
Closure	Interaction Sequence	Study Island
Evaluation (Summative and Formative)	Presentations	Teacher Observations

Materials/Resources

Anchor Charts	Journals	Resource Books
Calculators	Literature	Technology Integration
Graphic Organizers	Manipulatives	Videos/DVDs
Internet Resources	McDougal Littell 2008	Vocabulary (Cards, Strategies, and Lists)

Adopted: 8/18/83
Revised: 11/18/98; 9/17/03; 8/17/09; 5/19/14; 5/20/2019

2.1 Numbers and Operations	
The Standards of Mathematical Practices	
Make sense of problems and persevere in solving them. **Construct viable arguments and critique the reasoning of others.** **Use appropriate tools strategically.** **Look for and make use of structure.**	**Reason abstractly and quantitatively.** **Model with mathematics.** **Attend to precision.** **Look for and express regularity in repeated reasoning.**
CONTENT/KEY CONCEPTS	**OBJECTIVES/STANDARDS**
• The Number System • Ratios and Proportional Relationships	**CC.2.1.6.E.1** - Apply and extend previous understandings of multiplication and division to divide fractions by fractions. **CC.2.1.6.E.2** - Identify and choose appropriate processes to compute fluently with multi-digit numbers. **CC.2.1.6.E.3** - Develop and/or apply number theory concepts to find common factors and multiples. **CC.2.1.6.E.4** - Apply and extend previous understandings of numbers to the system of rational numbers. **CC.2.1.7.E.1** - Apply and extend previous understandings of operations with fractions to operations with rational numbers. **CC.2.1.6.D.1** - Understand ratio concepts and use ratio reasoning to solve problems. **CC.2.1.7.D.1** - Analyze proportional relationships and use them to model and solve real-world and mathematical problems.

2.2 Algebraic Concepts	
CONTENT/KEY CONCEPTS	**OBJECTIVES/STANDARDS**
• Expressions and Equations	**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 solving a one-variable equation or inequality and apply to real-world and mathematical problems. **CC.2.2.6.B.3** – Represent and analyze quantitative relationships between dependent and independent variables. **CC.2.2.7.B.1** - Apply properties of operations to generate equivalent expressions. **CC.2.2.7.B.3** - Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations. **CC.2.2.8.B.1** - Apply concepts of radicals and integer exponents to generate equivalent expressions. **CC.2.2.8.B.2** - Understand the connections between proportional relationships, lines, and linear equations. **CC.2.2.8.B.3** - Analyze and solve linear equations and pairs of simultaneous linear equations. **CC.2.2.8.C.1** - Define, evaluate, and compare functions. **CC.2.2.8.C.2** - Use concepts of functions to model relationships between quantities.

2.3 Geometry	
CONTENT/KEY CONCEPTS	**OBJECTIVES/STANDARDS**
• Geometry	**CC.2.3.6.A.1** - Apply appropriate tools to solve real-world and mathematical problems involving area, surface area, and volume.

2.4 Measurement, Data, and Probability	
CONTENT/KEY CONCEPTS	**OBJECTIVES/STANDARDS**
• Statistics and Probability	**CC.2.4.6.B.1** – Demonstrate an understanding of statistical variability by displaying, analyzing, and summarizing distributions.