



LINCOLN-WOODSTOCK COOPERATIVE SCHOOL DISTRICT COURSE SYLLABUS

Course Name: Grade 8 Math

Semester: Full Year Course

Teacher: Sarah Kraus

Course Description: This course is designed to extend and apply grade 7 math content knowledge in the following content areas: the number system, equations and inequalities, functions, geometry, and statistics and probability. Problem solving and critical thinking skills, along with the use of technology, will be emphasized and utilized throughout the course.

PRE-REQUISITES: Completed Grade 7 Math Course with a passing grade for the year or competence demonstrated on the math placement exam.

Competencies or Standards Assessed:

1. Functions (8.F)
2. The Number System (8.NS)
3. Expressions and Equations (8.EE)
4. Geometry (8.G)
5. Statistics and Probability (8.SP)

Mathematical Practices and Problem Solving Standards: MP.1-MP.8

Anchor Texts or Major Curriculum:

Grade 8 Envision Math 2.0 Savvas Realize Program (includes Volume 1 and Volume 2 textbooks and digital platform)

Course Outline (major units of study):

Unit Title	Essential Question or Overarching Understanding
Topic 1: Real Numbers	What are real numbers and how are they used to solve problems?
Topic 2: Analyze and Solve Linear Equations	How can you analyze connections between linear equations and use them to solve

	problems?
Topic 3: Use Functions to Model Relationships	How can you use functions to model linear relationships?
Topic 4: Investigate Bivariate Data	How can you represent the relationship between paired data and use the representation to make predictions?
Topic 5: Analyze and Solve Systems of Linear Equations	What does it mean to solve a system of linear equations?
Topic 6: Congruence and Similarity	How can you show two figures are either similar or congruent to each other?
Topic 7: Understand and Apply the Pythagorean Theorem	How can you use the Pythagorean Theorem to solve problems?
Topic 8: Solve Problems Using Surface Area and Volume	How can you find volumes and surface areas of three-dimensional figures?

Portrait of a Learner

Independent Learner

I make thoughtful plans and do my best to reach personal goals using feedback to work through challenges.

Responsible Collaborator

I work with others to achieve shared goals by listening actively, contributing ideas, and managing conflict.

Critical Thinker

I analyze information, ask thoughtful questions, and apply reasoning skills to solve problems and make decisions.

Effective Communicator

I express ideas clearly, adapting strategies based on the audience, setting, and/or purpose.

Global Citizen

I show that I care and take responsibility by helping in my community and the world around me.

Additional Classroom Expectations:

Be respectful, be responsible, and be open-minded.