

Information for Course Syllabus

Name of Course: Algebra 3 SAILs

Grade Level: 12

School: ORHS

Major Assignments: None

Field Trips: None

How can parents access instructional materials? Canvas

Algebra 3 SAILS

2021-2022

Term 1

Real Numbers Unit

Introduction to Fractions and Decimals

Factors and Prime Factorization

Simplifying Fractions

Fractions and Problem Solving

Rounding

Decimals and Problem Solving

Comparing Fractions and Decimals

Symbols and Sets of Numbers

Absolute Value

Order of Operations

Real Numbers and Problem Solving

Introduction to Percent

Solving Percent Problems

Solving Percent Problems-Interest

Unit Conversion-Length

Unit Conversion-Weight and Mass

Unit Conversion-Capacity

Perimeter and Circumference

Area

Volume of Solids

Surface Area

Algebra 3 SAILS

2021-2022

Term 1

Operations with Algebraic Expressions Unit	Evaluate with Substitution
	The Distributive Property
	Combining Like Terms
	Add and Subtract Polynomials
	Multiply Polynomials
	Factor Out the Greatest Common Factor, GCF
	Rules of Exponents - Product Rule
	Module Rules of Exponents - Power Rules
	Rules of Exponents - Quotient Rule
	Rules of Exponents - Negative Exponents
	Use the Rules of Exponents
	Scientific Notation

Equations and Inequalities Unit	Solutions to Equations
	Addition Property of Equality
	Multiplication Property of Equality
	Solving Multi-Step Equations
	Further Solving of Linear Equations
	Further Solving of Linear Equations II
	Formulas and Problem Solving
	Graphing One-Variable Inequalities
	Solving One-Step Inequalities
	Solving Multi-Step Inequalities
	Understanding Proportions
	Solving Problems Involving Proportions

Algebra 3 SAILS

2021-2022

Term 2

Linear Graphing Unit	Coordinate Plane
	Graphing Linear Equations
	Intercepts
	Slope
	Slope as Rate of Change
	Slope-Intercept Form
	Point-Slope Form
	Introduction to Functions
	Function Notation
	Graphing Linear Inequalities in Two Variables
	Mathematical Modeling

Modeling and Critical Thinking Unit	Factoring Trinomials
	Factor Trinomials where a is not 1
	Solve by Factoring
	Simplifying Square Roots
	Solve with the Quadratic Formula
	Solving Linear Systems of Equations by Graphing
	Solving Linear Systems of Equations by Substitution
	Solving Linear Systems of Equations by Addition
	Solving Nonlinear Systems of Equations
	Charts and Graphs (p. 111)
	Measures of Central Tendency
	Scatter Plots
	Counting and Intro to Probability
	Addition and Multiplication Rules
	Complements and Conditional Probability

Algebra 3 SAILS

2021-2022

Term 2

Advanced Topics Unit

Perimeter and Circumference - Composite Figures

Area - Composite Figures

Volume of Solids - Hemispheres & Composite Figures

Relationships between Perimeter, Area, and Volume

Properties of Angles

Pythagorean Theorem

Special Right Triangles

Similar Triangles

Basic Right Triangle Trigonometry

Angles of Elevation and Depression

Solve by Inspection

Solve by Completing the Square

Complex Numbers

Complex Solutions to the Quadratic Formula

Distance and Midpoint

Graphing Quadratic Equations

Graphing Absolute Value Functions

Graphing Piecewise Functions