

Mathematics Scope and Sequence
Vashon Island High School: Basic Algebra

First Trimester	Second Trimester	Third Trimester
<p>Working with numbers (Ch. 1)</p> <ul style="list-style-type: none"> • Using letters for numbers • Order of operations • Coefficients and terms • Properties of addition • Exponents and factors • Properties of multiplication • Distributive Property • Properties of zero and one • Introduction to equations • Introduction to inequalities <p>Solving equations (Ch. 2)</p> <ul style="list-style-type: none"> • Solving using addition and subtraction • Solving using multiplication and division • Solving equations using multiple steps • “A mind reading trick” • Combining terms • Writing algebraic expressions • Variable on both sides of the equation • Equations with parentheses • Applications <p>Positive and negative numbers (Ch. 3)</p> <ul style="list-style-type: none"> • Ordering and comparing integers • Inequalities and graphs • Adding and subtracting • Simplifying expressions • Multiplying • Dividing • Solving equations with integers • Absolute value <p>Formulas (Ch. 4)</p> <ul style="list-style-type: none"> • Perimeter and circumference • Area • Volume • Writing formulas • Motion formulas • Cost and money problems • New formulas from old • Formulas from mechanics 	<p>Working with polynomials (Ch. 5)</p> <ul style="list-style-type: none"> • Adding and subtracting • Monomials multiplication • Powers of monomials • Polynomial multiplication • Multiplying at sight • Square of a binomial • Dividing monomials • Rules of exponents • Polynomials divided by monomials <p>Factoring (Ch. 6)</p> <ul style="list-style-type: none"> • Factoring in arithmetic • Common monomial numbers • Using factoring • Factoring trinomials • A special product • Factoring a difference of squares • Many types of factoring <p>Graphs (Ch. 7)</p> <ul style="list-style-type: none"> • Graphs (pictographs, bar graphs, line graphs) • Points on a graph • Solution pairs • Graphs of equations • Slope of a line • Functions • Graphs of inequalities <p>Equations with two variables (Ch. 8)</p> <ul style="list-style-type: none"> • Graphing method • No solution, many solutions • Substitution method • Elimination method (addition, subtraction, multiplication) • Applications 	<p>Working with fractions (Ch. 9)</p> <ul style="list-style-type: none"> • Fractions in algebra • -1 Factor • Ratios • Proportions • Multiplying and dividing fractions • Adding and subtracting fractions • Equations with fractions • Applications <p>Decimals and percents (Ch. 10)</p> <ul style="list-style-type: none"> • Decimals • Division with decimals • Equations with decimals • Using decimal equations • Percents • Using percents • Percents in equations • Applications (interest, investment, mixture problems) <p>Squares and square roots (Ch. 11)</p> <ul style="list-style-type: none"> • Square roots • Irrational roots and numbers • Simplifying roots • Solving equations • Pythagorean Theorem • Quotients of roots • Multiplication and division • Rationalizing • Addition and subtraction <p>Quadratic equations (Ch. 12)</p> <ul style="list-style-type: none"> • Zero products • Solving quadratic equations • Using square roots • The quadratic formula • Problem solving • Quadratic graphs