

ALGEBRA LONG RANGE PLANS 2009 - 2010

***Listed below are basic goals, keeping the math core curriculum and the individual student as the center of focus. Note: If time permits other topics will be added.**

TRIMESTER ONE

- Expressions: writing, evaluating, and using to represent real-life situations
- Review of exponents/powers
- Simplifying radicals (rational, and irrational)
- Operations with radicals
- Review of order of operations
- Review of adding, subtracting, multiplying, and dividing real numbers
- Distributive property
- Probability
- Solving equations using inverse operations
- Using the distributive property with equations
- Combining like terms with equations
- Solving equations (multi-step, variables on both sides)
- Graphing intro (tables, functions, coordinates, and scatterplots)
- Graphing linear equations (with tables, using intercepts, slope, slope-intercept)
- Writing linear equations (given: slope-intercept, slope and a point, and two points)
- Writing linear equations (standard form)

TRIMESTER TWO

- Solving linear inequalities (one-step, multi-step)
- Graphing linear inequalities
- Solving absolute value equations and inequalities
- Statistics

TRIMESTER TWO CONTINUED

- Systems of Equations (graphing method, substitution method, linear combination, applications, and special types)
- Solving systems of inequalities by graphing
- Multiplication and division properties with exponents
- Exponential growth and exponential decay functions

TRIMESTER THREE

- Adding, subtracting, and multiplying polynomials
- Special products with polynomials
- Zero product property with polynomials
- Factoring polynomials ($ax^2 + bx + c$ and $x^2 + bx + c$)
- Special cases with factoring polynomials
- Factoring using the distributive property

THROUGHOUT THE YEAR

- Using estimation in judging reasonableness in problem solving,
- Using cooperative group work, centers, and projects to develop self-confidence and responsibility,
- Using technology to help organize and analyze data,
- Using note-taking skills, and
- Relating algebra to everyday life.