2022/2023 Scope and Sequence

Grade: Mixed   Month: Oct/Nov

Content Area: Math   Sub Content: Alg 1

What our students will know and be able to do	Learning Activities	Materials	Assessment tools	Notes
- Solve Simple Linear Equations - Solve Multi-Step Equations - Solve equations with variables on both sides - Rewrite equations and solve for variables in literal equations - Graph Linear Equations - Find the Slope of a Line (including relationship between perpendicular and parallel lines) - Graph Linear Equations in Standard Form - Write Equations in Slope-Intercept Form from a table and graph	- Inquiry based investigations - Barbie Bungee - Multi-Step Problem Solving - Direct Instruction - Peer collaboration	- Big Ideas Curriculum - NCTM activities - NCTM problem solving packets - Coordinate Plane white boards/dry erase markers - Adventurous Thrift Store Barbies	- Informal check-ins - Opportunities show how students solve up front - Quizzes - Tests - Ixl modules	

- Write Equations in Point-Slope Form - Solve Real World Problems with Linear Equations - Write and Graph Inequalities - Solve Inequalities Using Addition and Subtraction - Solve Inequalities Using Mult/Div			

What our students will know and be able to do	Learning Activities	Materials	Assessment tools	Notes
- Graph Linear Inequalities in Two Variables - Solve Systems of Linear Equations by Graphing - Solve Systems of Linear Equations by Substitution - Solve Systems of Linear Equations by Elimination - Solve Systems of Linear Equations with No or Infinite Solutions - Solve Systems of Linear Inequalities - Understand Domain and Range of a Function - Decide if a Domain is Discrete or Continuous - Recognize Linear Function Patterns from a Table	- Inquiry based investigations - Multi-Step Problem Solving - Direct Instruction - Peer collaboration	- Big Ideas Curriculum - NCTM activities - NCTM problem solving packets - Coordinate Plane white boards/dry erase markers	- Informal check-ins - Opportunities show how students solve up front - Quizzes - Tests - Ixl modules	

2022/2023 Scope and Sequence

Grade: Mixed   Month: Jan/Feb

Content Area: Math   Sub Content: Alg 1

What our students will know and be able to do	*Learning Activities*	*Materials*	*Assessment tools*	*Notes*
- Use function notation - Graph a step-wise function - Solve absolute value functions - Compare linear and non-linear functions - Write arithmetic sequences given a sequence - Use properties of square roots to simplify expressions - Use properties of exponents to simplify expressions - Use properties of radical and rational exponents to simplify expressions - Graph exponential functions and compare to mother	- Inquiry based investigations - Multi-Step Problem Solving - Direct Instruction - Peer collaboration - Math games	- Big Ideas Curriculum - NCTM activities - NCTM problem solving packets - Coordinate Plane white boards/dry erase markers	- Informal check-ins - Opportunities show how students solve up front - Quizzes - Tests - Ixl modules	

function ● Solve exponential equations graphically and algabraically ● Write exponential growth and decay functions from a table ● Write geometric sequences to model a given sequence ● Describe polynomials by number of terms and degree ● Add and subtract polynomials ● Multiplying polynomials ● Recognize special products of polynomials ● Solve polynomial equations in factored form ● Factor polynomials using GCF			

2022/2023 Scope and Sequence

Grade: Mixed   Month: Mar/Apr

Content Area: Math   Sub Content: Alg 1

What our students will know and be able to do	*Learning Activities*	*Materials*	*Assessment tools*	*Notes*
- Factor $x^2 + bx + c$ - Factor quadratics with a leading coefficients: $ax^2 + bx + c$ - Factor special products - Factor polynomials completely - Graph polynomials of degree 2 - Find the focus of a parabola - Graph parabolas in vertex form - Compare linear, exponential, and quadratic functions - Solve quadratic equations by graphing - Solve quadratic equations by square roots - Solve quadratic equations by completing the	- Inquiry based investigations - Multi-Step Problem Solving - Direct Instruction - Peer collaboration - Math games	- Big Ideas Curriculum - NCTM activities - NCTM problem solving packets - Coordinate Plane white boards/dry erase markers	- Informal check-ins - Opportunities show how students solve up front - Quizzes - Tests - Ixl modules	

square ● Solve quadratic equations using the quadratic equation ● How to choose a solution method for quadratic equations				

2022/2023 Scope and Sequence

Grade: Mixed   Month: May/June

Content Area: Math   Sub Content: Alg 1

What our students will know and be able to do	Learning Activities	Materials	Assessment tools	Notes
- Solve systems of linear and quadratic equations - Graph square root functions - Rationalize denominators - Solve square root equations - Use the Pythagorean Thm and its converse - Recognize direct and inverse variation - Graph rational functions - Simplify rational expressions - Multiplying and dividing rational expressions - Divide polynomials - Add and subtract polynomial	- Inquiry based investigations - Multi-Step Problem Solving - Direct Instruction - Peer collaboration - Math games	- Big Ideas Curriculum - NCTM activities - NCTM problem solving packets - Coordinate Plane white boards/dry erase markers	- Informal check-ins - Opportunities show how students solve up front - Quizzes - Tests - Ixl modules	

expressions • Solve rational equations				