WAYNE LOCAL SCHOOLS

ALGEBRA 1   **PACING GUIDE DESK REFERENCE 1ST QUARTER**

Unit	Standards	Lessons	Textbook Correlation
0	(Summer Assignment/Review)	4 days 1 SLO Pre-Test 1 Summer Assignment Test	
1	**A.SSE.1** Interpret expressions that represent a quantity in terms of its context. **A.SSE.1a** Interpret parts of an expression, such as terms, factors, and coefficients. **A.CED.1** Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions. **A.CED.2** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. **A.REI.10** Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).	5 lessons 10 days 1 test	1-1 1-2 1-7 (2 days) 1-8 (2 days) 1-9
2	**A.SSE.1** Interpret expressions that represent a quantity in terms of its context. **A.SSE.1a** Interpret parts of an expression, such as terms, factors, and coefficients. **A.CED.1** Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions,	8 lessons 15 days 1 quiz (2-1 – 2-5) 1 test	2-2 2-3 (2 days) 2-4 (2 days) 2-5 Quiz 2-6 2-7

	and simple rational and exponential functions. **A.CED.2** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. **A.CED.4** Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. For example, rearrange Ohm's law $V = IR$ to highlight resistance R. **A.REI.1** Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method. **A.REI.3** Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. **N.Q.1** Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays. **N.Q.2** Define appropriate quantities for the purpose of descriptive modeling. **N.Q.3** Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.		2-8 2-10 (2 days)
3	**A.CED.1** Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions. **A.REI.3** Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	6 lessons 11 days 1 test	3-2 3-3 (2 days) 3-4 (2 days) 3-5 3-6 3-7 (2 days)

	A.SSE.1 Interpret expressions that represent a quantity in terms of its context. **A.SSE.1.b** Interpret complicated expressions by viewing one or more of their parts as a single entity. For example, interpret P(1+r)n as the product of P and a factor not depending on P N.Q.2 Define appropriate quantities for the purpose of descriptive modeling.		
4 Part 1	**A.REI.10** Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line). **F.IF.4** For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*	4 lessons 5 days 1 quiz	4-1 4-2 4-3 Quiz

STANDARDS FOR
MATHEMATICAL PRACTICE

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for an express regularity in repeated reasoning.

Unit 1: Foundations of Algebra
I can write algebraic expressions.
I can simplify expressions involving exponents.
I can use the order of operations to evaluate expressions.
I can use the Distributive Property to simplify expressions.
I can solve equations using tables and mental math.
I can use tables, equations, and graphs to describe relationships.

Unit 2: Solving Equations
I can solve one-step equations in one variable.
I can solve two-step equations in one variable.
I can solve multi-step equations in one variable.
I can solve equations with variables on both sides.
I can identify equations that are identities or have no solution.
I can rewrite and use literal equations and formulas.
I can find ratios and rates.

I can convert units and rates.
I can solve and apply proportions.
I can find missing lengths in similar figures.
I can use similar figures when measuring indirectly.
I can find percent change.
I can find the relative error in linear and nonlinear measurements.

Unit 3: Solving Inequalities
I can use addition and subtraction to solve inequalities.
I can use multiplication and division to solve inequalities.
I can solve multi-step inequalities.
I can write sets and identify subsets.
I can find the complement of a set.
I can solve and graph inequalities containing the word *and*.
I can solve and graph inequalities containing the word *or*.
I can solve equations and inequalities involving absolute value.

Unit 4: An Introduction to Functions
I can represent mathematical relationships using graphs.
I can identify and represent patterns that describe linear functions.
I can identify and represent patterns that describe nonlinear functions.
I can graph equations that represent functions.
I can write equations that represent functions.
I can determine whether a relation is a function.
I can find domain and range and use function notation.
I can identify and extend patterns in sequences.
I can represent arithmetic sequences using function notation.