PCSD Lesson Planning Template

Grade Level 9th Algebra I		Teacher/Room: S. Pinson/Room 182		Week of: October 31– November 4, 2016
Unit Vocabulary: see attached				
Instructional Strategies Used: direct instruction, independent study, interactive instruction, partners				

Day 1	Day 2	Day 3	Day 4	Day 5
GSE/GPS Standard(s): .	**GSE/GPS Standard(s)**: **MGSE9-12.A.REI.6** Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.	**GSE/GPS Standard(s)**: **MGSE9-12.A.REI.5** Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions**.**	**GSE/GPS Standard(s)**: **MGSE9-12.A.REI.5** Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions**.**	**GSE/GPS Standard(s)**: **MGSE9-12.A.REI.5** Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions**.**
EQ Question:	**EQ Question:** How do I solve a system of linear equations by substitution?	**EQ Question:** How do I solve a system of linear equations by elimination?	**EQ Question:** How do I solve a system of linear equations by elimination?	**EQ Question:** What is the best method to use to solve a system of equations?
POE Day	**Mini Lesson**: Computer Lab **Activating Strategies:** Application: Solving by Substitution **Lesson**: Solving Systems by Substitution (continued) 1. Computer Lab 2. More Practice with Solving Systems by Substitution 3. Assignment 4. Quiz: Solving Systems by Graphing and Substitution **Resource/Materials:** Powerpoint, Quizzes, Worksheet	**Mini Lesson:** Person Puzzle – Maya Angelou (Partners) **Activating Strategies:** One System – Three Ways (graphic organizer) **Lesson:** Solving Systems by Elimination 1. Whole Group Task: Solving Systems of Eqns Algebraically (p. 73, Unit 2, GSE Coordinate Algebra) 2. Powerpoint – Keeper 9 with guided notes 3. Graphic Organizer 4. Practice problems (Partners) 5. Assignment **Resource/Materials:** Powerpoint, partner practice WS, tasks, elimination worksheets	**Mini Lesson:** Computer Lab **Activating Strategies:** Right/Wrong – Elimination **Lesson:** Solving Systems by Elimination 1. Computer Lab 2. Notes – using multiplication with elimination 3. Practice problems (Partners) 4. Assignment **Resource/Materials:** Powerpoint, partner practice WS, tasks, elimination worksheets	**Mini Lesson:** 24 **Activating Strategies:** Which way will you solve and why? **Lesson**: Choosing the best method to solve a System of equations 1. Quiz – Friday WS 2. Notes on choosing the best method. 3. Assignment – Class work **Resource/Materials:** Worksheet Packet (Sub Plans)
Differentiation: *Content/Process/Product:* *Grouping Strategy:* *Assessment*	**Differentiation:** *Content/Process/Product:* USATestPrep *Grouping Strategy:* *Assessment:*	**Differentiation:** *Content/Process/Product:* graphic organizer, guided notes *Grouping Strategy:* Partners *Assessment:* teacher observation	**Differentiation:** *Content/Process/Product:* graphic organizer, guided notes *Grouping Strategy:* Partners *Assessment:* teacher observation	**Differentiation:** *Content/Process/Product:* *Grouping Strategy:* *Assessment*
Assessment : *Formative:* *Summative*	**Assessment :** *Formative:* thumbs up/down, quiz *Summative:*	**Assessment :** *Formative:* thumbs up/down, monitoring classwork *Summative:*	**Assessment :** *Formative:* thumbs up/down, monitoring classwork *Summative:*	**Assessment :** *Formative:* thumbs up/down, quiz *Summative*
Homework: Friday WS	**Homework**: Solving by Substitution WS	**Homework:** Solving by Elimination WS	**Homework:** Solving by Elimination WS	**Homework:** none

• **Algebra**. The branch of mathematics that deals with relationships between numbers, utilizing letters and other symbols to represent specific sets of numbers, or to describe a pattern of relationships between numbers.

- **Arithmetic Sequence**. A sequence of numbers in which the difference between any two consecutive terms is the same.

- **Average Rate of Change**. The change in the value of a quantity by the elapsed time. For a function, this is the change in the y-value divided by the change in the x-value for two distinct points on the graph.

- **Coefficient**. A number multiplied by a variable in an algebraic expression.

- **Constant Rate of Change**. With respect to the variable x of a linear function y = f(x), the constant rate of change is the slope of its graph.

- **Continuous**. Describes a connected set of numbers, such as an interval.

- **Discrete**. A set with elements that are disconnected.

- **Domain**. The set of x-coordinates of the set of points on a graph; the set of x-coordinates of a given set of ordered pairs. The value that is the input in a function or relation.

- **End Behaviors**. The appearance of a graph as it is followed farther and farther in either direction.

- **Equation**. A number sentence that contains an equals symbol.

- **Explicit Formula**. A formula that allows direct computation of any term for a sequence $a_1, a_2, a_3, \ldots, a_n, \ldots$.

- **Expression**. Any mathematical calculation or formula combining numbers and/or variables using sums, differences, products, quotients including fractions, exponents, roots, logarithms, functions, or other mathematical operations.

- **Factor**. For any number x, the numbers that can be evenly divided into x are called factors of x. For example, the number 20 has the factors 1, 2, 4, 5, 10, and 20.

- **Inequality**. Any mathematical sentence that contains the symbols > (greater than), < (less than), ≤ (less than or equal to), or ≥ (greater than or equal to).

- **Interval Notation**. A notation representing an interval as a pair of numbers. The numbers are the endpoints of the interval. Parentheses and/or brackets are used to show whether the endpoints are excluded or included.

- **Linear Function**. A function with a constant rate of change and a straight line graph.

- **Linear Model**. A linear function representing real-world phenomena. The model also represents patterns found in graphs and/or data.

- **Ordered Pair**. A pair of numbers, (x, y), that indicate the position of a point on a Cartesian plane.

- **Parameter**. The independent variable or variables in a system of equations with more than one dependent variable.

- **Range**. The set of all possible outputs of a function.

- **Recursive Formula**. A formula that requires the computation of all previous terms to find the value of an.

- **Slope**. The ratio of the vertical and horizontal changes between two points on a surface or a line.

- **Substitution**. To replace one element of a mathematical equation or expression with another.

- **Term**. A value in a sequence--the first value in a sequence is the 1st term, the second value is the 2nd term, and so on; a term is also any of the monomials that make up a polynomial.

- **Variable**. A letter or symbol used to represent a number.

- **X-intercept**. The point where a line meets or crosses the x-axis

- **Y-intercept**. The point where a line meets or crosses the y-axis