

# PCSD Lesson Planning Template

<u>Grade Level</u> 9th Algebra I		<u>Teacher/Room:</u> S. Pinson/Room 182		Week of: October 17-21, 2016	
<b>Unit Vocabulary:</b> see attached					
<b>Instructional Strategies Used:</b> direct instruction, independent study, interactive instruction, partners					
<u>Day 1</u>	<u>Day 2</u>	<u>Day 3</u>	<u>Day 4</u>	<u>Day 5</u>	
<b>GSE/GPS Standard(s):</b> <b>MGSE9-12.A.REI.12</b> Graph the solution set to a linear inequality in two variables.	<b>GSE/GPS Standard(s):</b> <b>MGSE9-12.A.REI.12</b> Graph the solution set to a linear inequality in two variables.	<b>GSE/GPS Standard(s):</b> <b>MGSE9-12.A.REI.6</b> Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.	<b>GSE/GPS Standard(s):</b> <b>MGSE9-12.A.REI.6</b> Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.	<b>GSE/GPS Standard(s):</b> All of them that we have covered so far.	
<b>EQ Question:</b> How do I graph a linear inequality in two variables?	<b>EQ Question:</b> How do I graph a linear inequality in two variables?	<b>EQ Question:</b> How do I solve a system of linear equations by substitution?	<b>EQ Question:</b> How do I solve a system of linear equations by substitution?	<b>EQ Question:</b> All of them that we have covered so far.	
<b>Mini Lesson:</b> Quiz  <b>Activating Strategies:</b> Solving inequalities  <b>Lesson:</b> Graphing inequalities 1. Notes with Graphic Organizer 2. Guided Practice 3. Assignment	<b>Mini Lesson:</b> Computer Lab  <b>Activating Strategies:</b> Solving inequalities  <b>Lesson:</b> Graphing inequalities and Solving Systems by Graphing 1. Notes on Solving Inequalities with Graphic Organizer 2. Guided Practice 3. Notes: Solving Systems by Graphing 4. Guided Practice with White Board 5. Assignment	<b>Mini Lesson:</b> Solving Systems by Graphing <b>Activating Strategies:</b> Right/Wrong: Solving by substitution  <b>Lesson:</b> Solving Systems by Substitution 1. Quiz on Friday WS 2. Powerpoint with guided notes 3. Graphic Organizer 4. Practice Problems (Partners) 5. Assignment	<b>Mini Lesson:</b> Computer Lab <b>Activating Strategies:</b> Application: Solving by Substitution  <b>Lesson:</b> Solving Systems by Substitution 1. More Practice with Solving Systems by Substitution 2. Assignment 3. Quiz: Solving Systems by Graphing and Substitution	<b>Review:</b> Reviewing everything we have covered so far.	
<b>Resource/Materials:</b> Graphs, colored pencils, graphic organizers, Power Point, worksheets	<b>Resource/Materials:</b> Graph Boards, markers, graphic organizers, Power Point, worksheets	<b>Resource/Materials:</b> Powerpoint, Graphic Organizers, Guided Notes, Worksheet	<b>Resource/Materials:</b> Powerpoint, Quizzes, Worksheet	<b>Resource/Materials:</b> Worksheet Packet (Sub Plans)	
<b>Differentiation:</b> <i>Content/Process/Product:</i> Partners <i>Grouping Strategy:</i> random <i>Assessment:</i>	<b>Differentiation:</b> <i>Content/Process/Product:</i> graphic organizer, graph boards, USATestPrep <i>Grouping Strategy:</i> <i>Assessment:</i>	<b>Differentiation:</b> <i>Content/Process/Product:</i> graphic organizer, guided notes <i>Grouping Strategy:</i> Partners <i>Assessment:</i> teacher observation	<b>Differentiation:</b> <i>Content/Process/Product:</i> USATestPrep <i>Grouping Strategy:</i> <i>Assessment:</i>	<b>Differentiation:</b> <i>Content/Process/Product:</i> <i>Grouping Strategy:</i> <i>Assessment:</i>	
<b>Assessment :</b> <i>Formative:</i> quiz on graphing equations <i>Summative:</i>	<b>Assessment :</b> <i>Formative:</i> thumbs up/down <i>Summative:</i>	<b>Assessment :</b> <i>Formative:</i> thumbs up/down, monitoring classwork <i>Summative:</i>	<b>Assessment :</b> <i>Formative:</i> thumbs up/down, quiz <i>Summative:</i>	<b>Assessment :</b> <i>Formative:</i> thumbs up/down, quiz <i>Summative:</i>	
<b>Homework:</b> worksheets	<b>Homework:</b> worksheets	<b>Homework:</b> Solving by Substitution WS	<b>Homework:</b> Solving by Substitution WS	<b>Homework:</b> none	

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- **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  $a_1, a_2, a_3, \dots, a_n, \dots$ .
- **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),  $\leq$  (less than or equal to), or  $\geq$  (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.

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- **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