

PCSD Lesson Planning Template

<u>Grade Level</u> 9th Algebra I		<u>Teacher/Room:</u> S. Pinson/Rm 182		Week of: February 27-March 3, 2017	
Unit Vocabulary: see attached					
Instructional Strategies Used: 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>	
GSE Standard(s): MGSE9-12.A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.	GSE Standard(s): MGSE9-12.A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression	GSE Standard(s): MGSE9-12.A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.	GSE Standard(s): MGSE9-12.A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.	GSE Standard(s): MGSE9-12.A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.	
EQ Question: How is FOIL related to factoring trinomials and binomials?	EQ Question: How is FOIL related to factoring trinomials?	EQ Question: How is FOIL related to factoring trinomials?	EQ Question: How is FOIL related to factoring trinomials?	EQ Question: How is FOIL related to factoring trinomials?	
Mini Lesson: Mixture of Factoring Problems Activating Strategies: Factoring a 4-term polynomial Lesson: Factoring By Grouping <ol style="list-style-type: none">Go over last Friday’s TestGuided practice on factoring by grouping problemsAssignment	Mini Lesson: Computer Lab Activating Strategies: Video - https://www.youtube.com/watch?v=AYkaCZUT4O4 Lesson: Factoring Trinomials $a>1$ <ol style="list-style-type: none">Diamond Method PracticeAlgebra Tiles (Partners)Guided Practice Resource/Materials: Powerpoint, Worksheets	Mini Lesson: Daily Math Review 1-6 Activating Strategies: FOIL Lesson: Factoring Trinomials $a>1$ (continued) <ol style="list-style-type: none">Graphic Organizer in Interactive NotebookGuided NotesGuided Practice – with white boardsAssignment Resource/Materials: Powerpoint, worksheets, logins	Mini Lesson: Computer Lab Activating Strategies: Factor completely problem Lesson: Factoring completely <ol style="list-style-type: none">Guided Practice- whiteboardsAssignment Resource/Materials: Powerpoint, worksheets	Mini Lesson: Factoring Problems Activating Strategies: Questions for Teacher Lesson: Review of Factoring Quiz: Factoring Resource/Materials: Powerpoint, quizzes	
Differentiation: <i>Content/Process/Product:</i> Guided Notes, White Boards <i>Grouping Strategy:</i> <i>Assessment:</i>	Differentiation: <i>Content/Process/Product:</i> USATestPrep <i>Grouping Strategy:</i> <i>Assessment:</i> teacher observation	Differentiation: <i>Content/Process/Product:</i> Guided Notes, White Boards, Interactive Notebooks <i>Grouping Strategy:</i> <i>Assessment:</i>	Differentiation: <i>Content/Process/Product:</i> Guided Practice, White Boards, USATestPrep <i>Grouping Strategy:</i> <i>Assessment:</i>	Differentiation: <i>Content/Process/Product:</i> Guided Practice, Whiteboards, USATestPrep <i>Grouping Strategy:</i> <i>Assessment:</i>	
Assessment : <i>Formative:</i> thumbs up/down, Whiteboards, quizzes <i>Summative:</i>	Assessment : <i>Formative:</i> thumbs up/down, monitoring classwork <i>Summative:</i>	Assessment : <i>Formative:</i> thumbs up/down, monitoring classwork, Whiteboards, quiz <i>Summative:</i>	Assessment : <i>Formative:</i> thumbs up/down, Whiteboards <i>Summative:</i>	Assessment : <i>Formative:</i> thumbs up/down, Whiteboards <i>Summative:</i>	
Homework: WS Factoring by Grouping	Homework: Day 10 – Factor Trinomials when a not 1 WS	Homework: Factoring Trinomials $a\neq1$	Homework: Mixture of Problems WS	Homework: none	

- **Complete factorization over the integers.** Writing a polynomial as a product of polynomials so that none of the factors is the number 1, there is at most one factor of degree zero, each polynomial factor has degree less than or equal to the degree of the product polynomial, each polynomial factor has all integer coefficients, and none of the factor polynomial can be written as such a product.
- **Completing the square.** Completing the Square is the process of converting a quadratic equation into a perfect square trinomial by adding or subtracting terms on both sides.
- **Difference of two squares.** A squared (multiplied by itself) number subtracted from another squared number. It refers to the identity $a^2 - b^2 = (a + b)(a - b)$ in elementary algebra.
- **Discriminant of a quadratic equation.** The discriminant of a quadratic equation of the form $ax^2 + bx + c = 0$, $a \neq 0$, is the number $b^2 - 4ac$.
- **Horizontal shift.** A rigid transformation of a graph in a horizontal direction, either left or right.
- **Perfect square trinomial.** A trinomial that factors into two identical binomial factors.
- **Quadratic equation.** An equation of degree 2, which has at most two solutions.
- **Quadratic function.** A function of degree 2 which has a graph that “turns around” once, resembling an umbrella-like curve that faces either right-side up or upside down. This graph is called a parabola.
- **Root.** The x-values where the function has a value of zero.
- **Standard form of a quadratic function.** $ax^2 + bx + c$
- **Vertex.** The maximum or minimum value of a parabola, either in terms of y if the parabola is opening up or down, or in terms of x if the parabola is opening left or right.
- **Vertex form of a quadratic function.** A formula for a quadratic equation of the form $f(x) = a(x - h)^2 + k$, where a is a nonzero constant and the vertex of the graph is the point (h, k) .